

National Energy Strategy Background Paper - 2001 Natural Gas

In the 1988 Energy Council National Energy Strategy background paper, the role of natural gas was characterized as a transition fuel, a bridge to a cleaner fuel future. Over the intervening decade, the growth of the importance of natural gas has been dramatic and it now appears that the "transition fuel" may have a role of its own for a long time to come. The inherent efficiency of gas, its environmental advantages and the removal of regulatory constraints are all important factors in its success.

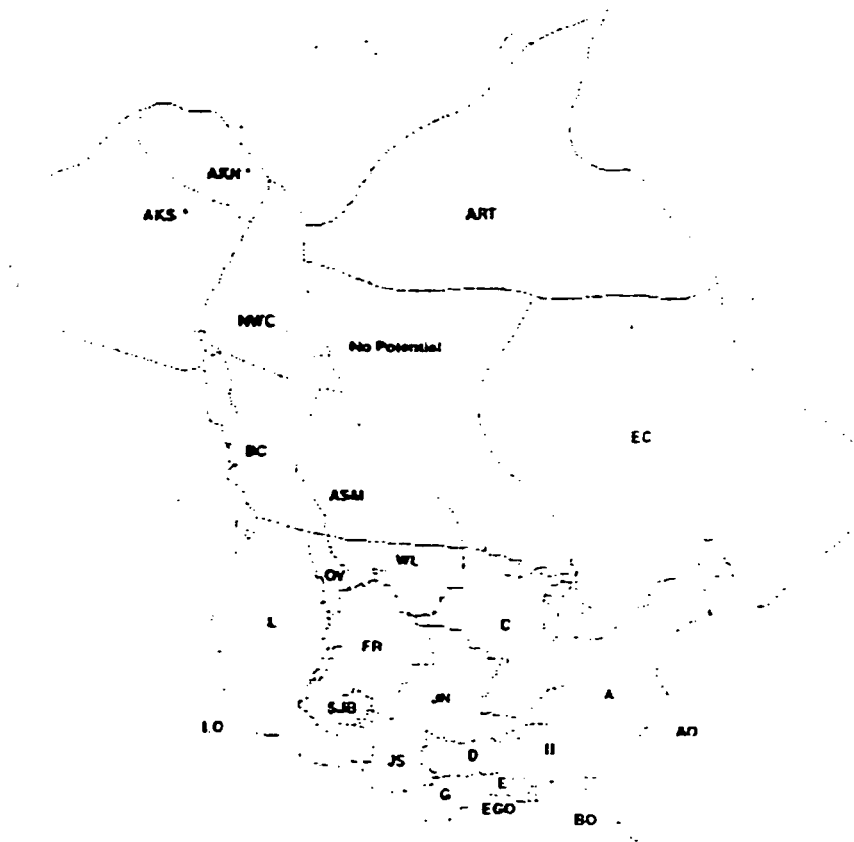
The U.S. is the world's largest gas producer, followed by the former Soviet Union. Estimates of supplies of gas are increasing due not only to exploration, but better assessment techniques. The demand outlook features gas dominating the burgeoning U.S. electric generation market. Long-term, sophisticated technology and a resource base of conventional and non-conventional sources hold the promise of making gas an important part of the world's energy mix, as well as that of the United States.

While there is a global market for oil and, in the whole, a domestic market for coal, the U.S. market for natural gas is currently dominated by North American resources. Both the supply and demand sides of these markets are growing. The U.S. natural gas resource base has increased an estimated 23 percent since 1992 thanks to new frontier areas and better technology to estimate and recover reserves.

There are two regions that will contribute most to the increase in domestic gas supply over the near to mid term: the Rocky Mountains and the deepwater Gulf of Mexico. Figure 3.1 illustrates Producing and Consuming Regions of the U.S. and Canada.

Figure 3.1

Producing and Consuming Regions

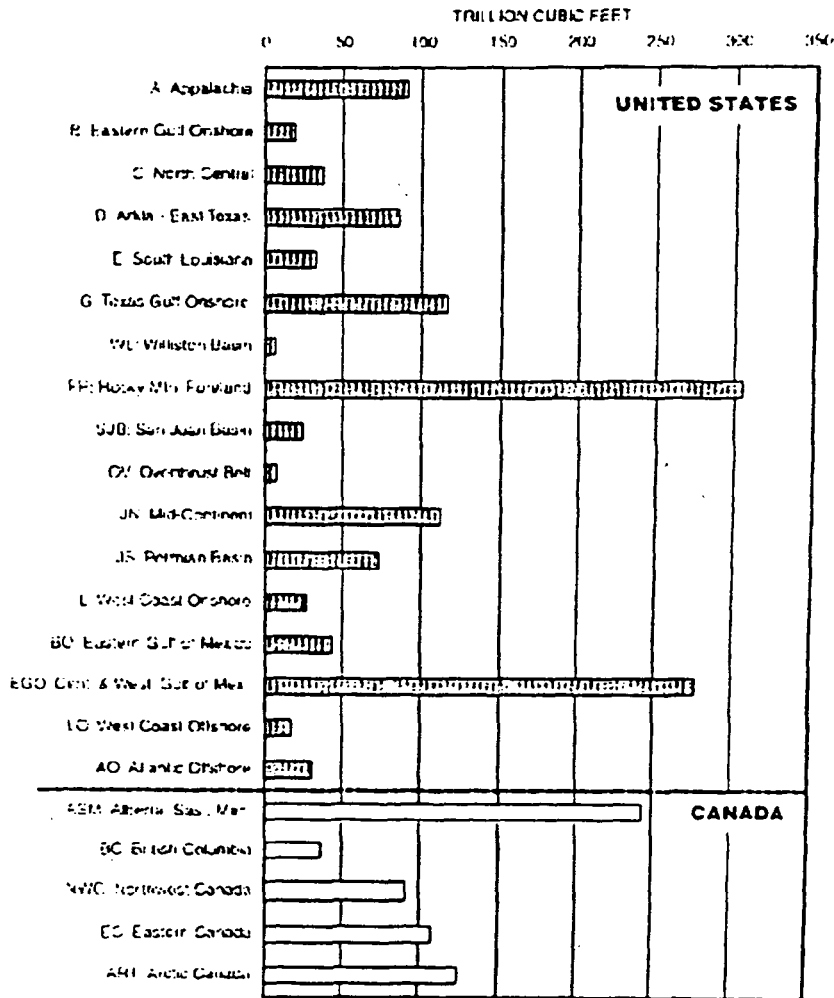


*Alaskan resources were not assessed in this study.

Source: National Petroleum Council - Natural Gas - Volume I - Dec. 99 - (pg. 38)

Table 3.1

Resources by Region



Source: National Petroleum Council - Natural Gas - Volume I - Dec. 99 - (pg. 38)

The National Petroleum Council (NPC) has recently estimated the U.S. natural gas resource base, excluding Alaska to be 1,466 Trillion cubic feet (Tcf). Add to this 313 Tcf of Alaskan resources and the national supply stands at 1,779 Tcf. Table 3.1 compares U.S. and Canadian natural gas resources from the NPC 1992 and 1999 studies.

This estimate includes unconventional sources that have emerged over the last twenty years to become part of the U.S. gas market. For example, coal bed methane production in 1982 was non-existent. Throughout the year 2000 in Wyoming alone, 2200 wells have been drilled and 1300 permits are outstanding.

The North American nature of the gas market is tied to the significant supplies of Canada's Western Sedimentary Basin (WSB) which covers much of Alberta and parts of British Columbia, Saskatchewan and Manitoba. Recently production has begun in the Scotian Basin offshore eastern Canada. Canada's reserves are estimated by the NPC to be 667 Tcf, but since the WSB and frontier regions of Canada are less mature than traditional U.S. producing regions, upward revisions of supplies may be expected.

Long term, the U.S. gas supply may become more global in character as liquefied natural gas (LNG) becomes more economic. Over the last decade LNG imports have been a small part of the supply picture, contributing 50 to 85 Billion cubic feet (Bcf) a year to U.S. supplies. In 1999, although U.S. LNG consumption was increasing, LNG still accounted for less than one percent of the natural gas used in the U.S., or 163Bcf.

~~Two previously mothballed LNG terminals, one at Elba Island, South Carolina and one at Cove Point, Maryland are scheduled to be placed back in service by 2005.~~ The combined annual regassification capacity of the four U.S. LNG receiving facilities will exceed 900 Bcf/yr.

Long considered "stranded" on the basis of transport economics, at least three alternatives for Alaska's natural gas resource base are under consideration. Moreover, the three are not mutually exclusive.

The first option is conversion to ~~LNG~~. Alaska has more than 20 years experience in exporting Cook Inlet LNG to Asian markets. Alternatively, Alaskan North Slope gas could be shipped through a new natural gas pipeline. There are a number of routes under consideration but most would bring the gas to southern Alberta where it would be shipped by existing pipelines to West Coast or Midwest U.S. markets. The market will dictate the actual route.

As a third alternative, Alaska's natural gas may serve environmental goals through conversion to liquid fuel. New gas-to-liquid (GTL) technology has reduced the costs of converting natural gas to an ultra clean, high performing liquid suitable for use as a transportation fuel.

Such a liquid fuel could utilize the existing oil transport infrastructure to move to environmentally sensitive markets. A low emission fuel, suitable for technologically-advanced engines, possibly even fuel cells, GTL fuel could also be blended with existing gasoline fuels to lower emissions or be used as a substitute for distillate fuel. Among the options for Alaskan natural gas, the market is expected to direct the needed financial resources to the option or combination of options that optimizes the value of the natural resource.

An intriguing potential source of supply, long term, that may be characterized as not only non-conventional but even exotic, is gas hydrates. Methane hydrates are ice-like materials formed in conditions of high pressure and low temperatures. Gas hydrates are found in Alaska's Arctic permafrost and in deep ocean environments.

The U.S. Department of Energy has estimated that one unit of this frozen, pressurized methane is equal to 160 volumes of gas and less than one unit of water at surface pressures and temperatures. The potential resource base of gas hydrates to be found in U.S. permafrost areas and surrounding waters is more than 100 times greater than estimated conventional U.S. gas resources. Some educated estimates put the methane hydrate resource base at 320,000 Tcf, while the U.S. Geological Survey estimates range between 112,000 and 676,000 Tcf. Efforts to research gas hydrates are only just beginning.

In 1999, according to DOE, total natural gas end use consumption was 21.4 Tcf. The industrial sector led the way with 9.9 Tcf or 46 percent of total consumption. The residential market accounted for 4.7 Tcf or 22 percent; electric utilities consumed 3.1 Tcf, about 15 percent; and the commercial sector used 3.1 Tcf or 14 percent. Table 3.2 shows 1999 data with estimates for 2005, 2010 and 2015 consumption data.

Table 3.2

**U.S. Natural Gas Consumption
(Tcf)**

	1999	2005	2010	2015
Total Consumption	22.7	26.3	29.0	31.3
Total End-Use	20.8	24.0	26.4	28.7
<i>Residential</i>	4.7	5.6	5.8	6.1
<i>Commercial</i>	3.1	3.7	3.8	4.1
<i>Industrial*</i>	9.9	9.6	10.2	10.8
<i>Electricity Generation</i>	3.1	5.1	6.6	7.8
Lease, Plant, & Pipeline Fuel	1.8	2.2	2.5	2.5
Net Storage Fill/Balancing	0.1	0.1	0.1	0.0

*Historical data includes all gas use for industrial cogeneration and independent power producers; all gas for new power plants except cogeneration is included in the electricity generation sector.

Source: U.S. DOE, Energy Information Administration, *Natural Gas Monthly*, July 1999, DOE communications

In terms of demand for natural gas, the future is promising. The NPC estimates a 32 percent increase in U.S. demand by 2010. This would mean approximately 14 million new gas customers. Electricity generation demand is expected to account for almost 50 percent of the consumption increases. There appears to be a convergence of the gas and electric industries currently underway. Efficiency, environmental advantages with regard to emissions and a favorable regulatory climate are responsible for the increase in gas demand.

According to the NPC, 96 percent of the more than 200 fossil fuel generating plants recently announced for construction in the next five years have specified natural gas for fuel. The price of competing fuels, the number of nuclear plant retirements and the capacity utilization of coal-fired electricity plants, as well as the health of the general economy, will all be factors in the extent to which gas generation expectations are met.

Imports from Canada to the U.S. are expected to increase from 3.3 Tcf in 1999 to over 4 Tcf in 2010. However, given growing U.S. demand overall, Canadian gas is expected to supply the same 13 to 14 percentage share of total U.S. demand that it does today.

Likewise, Canadian gas demand is expected to increase from 2.9 Tcf in 1999 to 3.5 Tcf in 2010 and 3.8 Tcf in 2015. This is an increase in Canada's demand of 28 percent from 1998 to 2015, all of which is expected to be met by Canadian production.

Currently, Mexico imports a very small amount of U.S. gas, primarily to serve industries along the U.S.-Mexican border. Trade between the two nations in natural gas is not expected to increase dramatically in the near-to-mid term. However, increasingly, pipeline connections and American investments in Mexican local distribution companies and power plants are likely to improve the chances for cross-border gas trade.

How will gas supplies reach the burgeoning demand? Requirements for expansion of transmission and distribution systems to meet the growing demand will be enormous. Figure 3.2 illustrates projects proposed for 1999-2001 that would increase transportation capacity by 10 Tcf a year if all proposed projects are built. However, some projects are likely to be mutually exclusive.

Frontier production areas like the deepwater Gulf of Mexico and offshore eastern Canada and shifting market regions will require new transmission lines. The dynamic customer base for natural gas will drive the expansion of the distribution system. Access issues and regulatory hurdles to permitting new pipelines on a timely basis loom large as considerations affecting this development.

This dramatic increase in the use of gas rests on a regulatory basis that has led to strong increases in gas use in this decade. The Federal Energy Regulatory Commission, building on an order issued in 1985, took a dramatic step in 1992, issuing Order 636 which restructured the natural gas market separating transmission and commodity sales.

Unencumbered by heavy-handed regulation, the natural gas market has developed hubs, as well as secondary transmission capacity trading and futures trading. However, adjustments relative to financial risk are still being made and are raised particularly in discussions of pipeline and distribution expansions.

Overall, the outlook for natural gas is bright but a number of issues require attention. Chief among these is the issue of access, which may stymie exploration and development, as well as transmission and distribution.

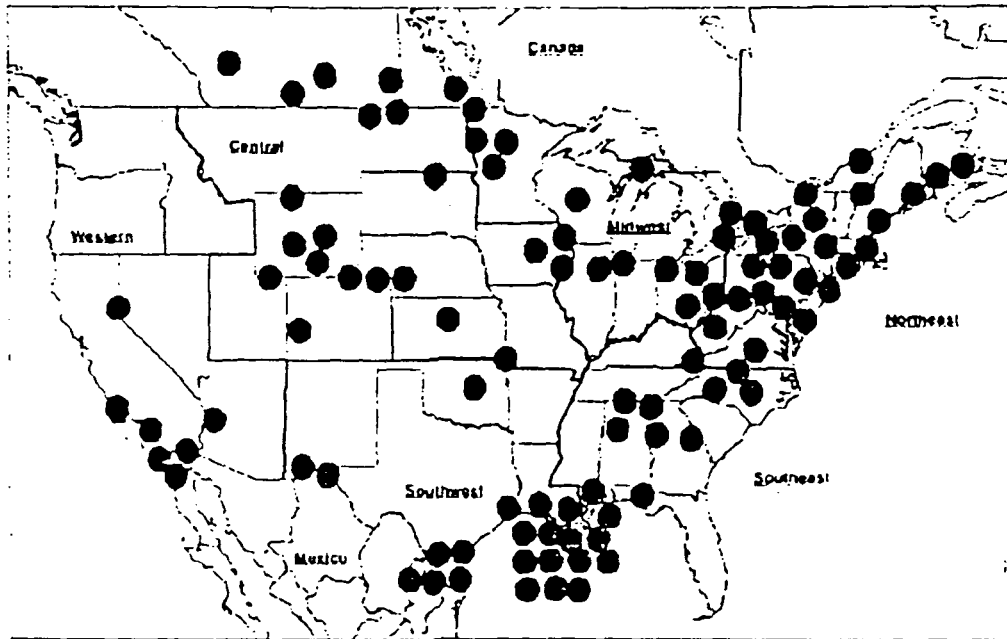
For exploration and development, the issue of access relates not only to outright prohibitions, but to limitations and restrictions which cause delays that make project economies unfeasible. For instance, due largely to Federal prohibitions, 10 percent of the promising Rocky Mountain region is strictly off limits to exploration and more than 40 percent is subject to restrictions which may add an average of two years to a project time line.

Impressive advances have been made in reducing the "footprint" of exploration and production activities, making oil and gas operations a reasonable neighbor for many uses of federal land under a multiple use concept. Efforts could be made to prioritize restricted areas, weighing resource potential, environmental sensitivity and the project's potential for high tech, low impact development.

Transmission and distribution systems similarly face increasing challenges for siting facilities in order to bring what many feel is an environmentally-preferred fuel to consumers. Rights-of-way delays in approval for pipelines and other restrictions are stopping some projects and delaying others.

FIGURE 3.2

**Proposed natural gas pipeline expansions
1999-2000 (84 Projects, 23.2 Bcf/d)**



Source: http://www.eia.doe.gov/pub/oil_gas/natural_gas/feature_articles/1997/natural_gas_pipeline_system_expansion/pdf/pipeline.pdf

In addition to transmission and distribution infrastructure needs, a shortage of drilling rigs over the next 15 years, for both onshore and offshore locations, threatens to restrict supply. As many as 90 percent of currently operating rigs would normally be retired before 2010. However, because of boom and bust cycles in the oil and gas industry, almost no new rigs have been built since the early 1980s. Financial risk is the primary concern.

Indeed, new rigs will be more expensive as they incorporate the latest technological advances. With state-of-the-art drilling system technologies, today's well is as likely to be drilled from a seat at a computer monitor as by someone directing activities from the rig floor.

The transformation of the oil and gas industry into a high tech business has serious implications for the work force, especially as information and communication technologies are increasingly integrated into the industry. Moreover, a number of employees have been lost through industry contractions (40,000 last year alone). College enrollment in geosciences is down significantly (60 percent or more). Industry demographics indicate a large number of present employees will retire over the next decade. These trends coupled with changing information and communications technology make employment and training a major concern for the industry.

Finally, continued development of technology is critical to meeting demand for gas, not only in exploration and development but in transmission and distribution, as well. Frontier areas are increasingly challenging to explore and produce. Changes in the type of consumption (e.g., sophisticated combined cycle turbines) and the number of consumers (e.g., 14 million new consumers) will require efficiency improvements in metering, billing, and other aspects of gas distribution.

The NPC stated in a recent gas report that, "Natural gas consumption has grown to a degree that its most ardent supporters would have found amazing at the time the 1992 NPC study was prepared." All factors point to an expansion of natural gas usage that would exceed even recent dramatic increases. Environmental policies regulating air emissions may lead to incremental increases in demand. On the other hand, tighter land use and environmental regulations may constrain exploration and production or transmission and distribution activities.

Assuring the integrity, safety and efficiency of the natural gas delivery infrastructure will be critical to achieving the growth of gas use as forecasted by the NPC. A public educated to the benefits of gas will help decide whether the market expands or is constrained. Moreover, state and local governments may work in concert to coordinate and streamline all regulations affecting natural gas development.

NATURAL GAS STRATEGY STATEMENT

It shall be part of the strategy of the United States to promote energy security through the use of clean, efficient natural gas in residential, commercial, industrial, utility and transportation applications. Such use shall include the use of natural gas with other fuels for efficiency and environmental purposes.

The United States shall promote and encourage domestic production of natural gas in an environmentally sound manner by providing tax and tax accounting incentives to producers of natural gas. 0

The United States government shall join with states and stakeholders to raise public awareness of the benefits of natural gas. Congress and the Administration shall work with the states to resolve ~~access issues for exploration and development,~~ as well as transmission and distribution. Efforts to weigh the advantages of gas use, the specific resource potential, the environmental sensitivities of affected lands and the applicability of high tech/low impact solutions should be encouraged. D

The United States shall continue to support and expand research and development efforts to transfer and commercialize technology and expertise to the natural gas workforce through education and training programs coordinated with the private sector.

Federal agencies shall work with state governments, universities, national laboratories, and international partners, as well as the private sector to establish and support long term research goals, including basic and developmental research. Such research shall seek to promote efficiency, safety and environmental stewardship in the exploration, production, transmission, storage, distribution, consumption, and other infrastructure needs of natural gas. Part of this program will be to assure the integrity, safety, protection and efficiency of the nation's natural gas storage and delivery systems.

**National Energy Strategy
Background Paper - 2001
Coal**

Coal is the most plentiful fossil energy resource in the U.S. Because of its reliable, low cost nature, coal is used to generate more than 50 percent of the nation's electricity. However, there are more environmentally significant emissions from coal combustion than from other fossil fuels. Therefore, the most pressing need for energy technology advances, both short and long term, is related to coal.

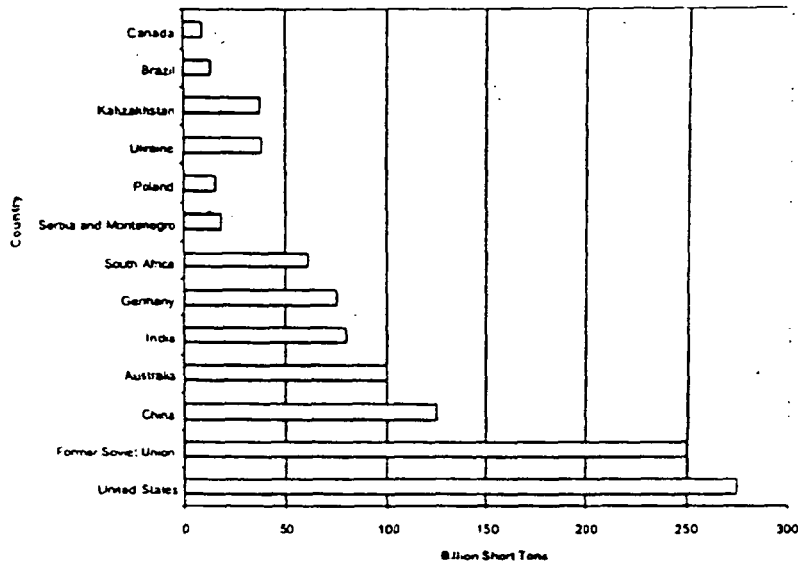
Supply

The United States has the largest share of recoverable coal reserves in the world (one quarter of the world's reserves). Figure 4.1 illustrates major coal reserves of the world by nation. In fact, coal resources in the U.S. are estimated to be more than 20 times the size of the nation's petroleum resources on a heat-equivalent (Btu) basis.

Found in more than two thirds of the fifty states, coal is not a homogenous resource. Coal varies by rank and characteristics, including heat index, moisture content and components like sulfur, which dictate environmental impacts. The four ranks of coal (from highest to lowest) are anthracite, bituminous, sub-bituminous and lignite. Moreover, the type of mine (underground or surface) and transportation requirements (mine mouth utilization, truck or long haul by rail) significantly impact the regional price structure for coal.

Figure 4.1

World Recoverable Coal Reserves

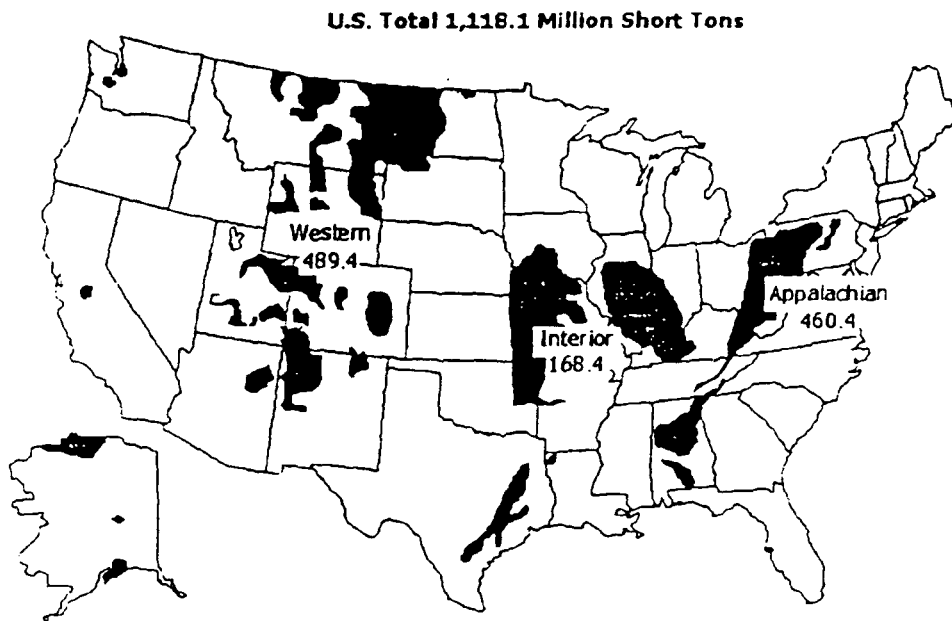


Source: U.S. DOE: EIA. International Energy Outlook, 2000.

There are three major coal-producing areas in the U.S.: the Appalachian, Interior and Western regions. Coal in the Appalachian region is primarily bituminous, with both high-energy content and high sulfur content. Appalachia is also the only source of anthracite coal in the U.S. Until recently, Appalachia has been the nation's leading coal production region. Figure 4.2 illustrates the coal producing regions of the U.S.

Figure 4.2

Coal Production by Coal-Producing Region, 1998



Source: The U.S. Coal Industry in the 1990's: Low Prices and Record Production; DOE/EIA - 0631 - Sept. 99 - (pg. 2)

Coal from the Interior region is either lignite or high sulfur bituminous, much like Appalachian coal. Lignite, the lowest ranked coal, has low heat value and high moisture content, often necessitating its use at mine-mouth power plants.

Generally sub-bituminous, Western coal has a relatively low heat value (compared to bituminous coal); but is low in sulfur and ash, as well. Production of Western coal, led by Wyoming's prolific Powder River Basin, has increased over the last eight years due in part to the coal's low sulfur characteristics.

In 1998, the Western region overtook Appalachia in terms of total production. In 1999 the Western region produced about 46 percent of U.S. coal, compared to almost 40 percent from the Appalachian region and about 15 percent for the Interior. As the nation's largest coal producer, Wyoming alone is responsible for almost one third of U.S. production.

Economics of scale related to the large surface mines of the Powder River Basin allow those facilities to produce coal at a much cheaper rate than their Appalachian or Interior counterparts, or even other Western mines. An analysis of 1996 prices indicated that Appalachian coal might cost as much as \$20 a ton more than Powder River Basin coal. However, the transportation charge to bring Wyoming coal to distant markets by rail may be as much as \$20 a ton, leveling the playing field.

In addition to the developed coalfields, there are other huge untapped coal resources in the U.S. like those in Alaska. Far from markets, these resources are not likely to be developed in the near future.

The abundant nature of coal has led it to become the most widely produced energy resource in the U.S., outstripping natural gas production in 1983 and crude oil in 1985. In fact, according to the U.S. D.O.E., since 1983 domestic coal production has increased 40 percent while U.S. crude oil production has declined and natural gas production has increased by 27 percent.

Coal is the only energy resource in the U.S. which is both imported and exported in any significant volumes. Even so, coal imports into the U.S. totaled less than one percent of U.S. consumption or about 9 million tons in 1999. Colombia, Venezuela, Indonesia and Canada were leading suppliers of coal to the U.S.

The U.S. was the world's third largest exporter of coal in 1999, after Australia and South Africa, exporting 59 million tons or about 5 percent of domestic production. However, the U.S. share of world market is in jeopardy due to intense global price competition.

Coal consumption in the U.S. now stands at 1 billion tons a year. The trend of increasing demand for coal is tied directly to coal's expanding role as a fuel for electricity generation in the U.S. More than half (56 percent) of the nation's electricity is generated with coal.

To underscore the relationship between coal and electricity, it may be noted that about 90 percent of U.S. coal consumption is for electricity generation. The remainder is for industrial steam purposes or production of coke for use in steel-making blast furnaces. Coal use by residential and commercial sectors in the U.S. is negligible and virtually no coal is used for transportation purposes.

Although coal dominates in terms of domestic energy supplies and plays a major role in U.S. energy consumption, changes that have taken place in the domestic coal industry over the last two to three decades are generally not recognized. As the price of coal has decreased markedly, productivity has substantially increased, proving the coal industry to be an agile one.

A recent DOE analysis demonstrated that between 1986 and 1997 coal production increased by 22 percent, the number of mines decreased by almost 60 percent, and productivity doubled while the average mine price for coal was cut roughly in half. Table 4.1 details data relating to coal productivity measures.

Table 4.1

**Coal Productivity Measures
1986 and 1997 (Total U.S.)**

	1986	1997
Number of Mines	4,424	1,828
Coal Production (million short tons)	890	1,090
Productivity (tons / miner per hour)	3	6
Average Mine Price (real dollars / short ton)	\$29.52	\$16.14

Source: U.S. DOE, EIA The U.S. Coal Industry in the 1990's: Low Prices and Record Production

The factors that have led to improved productivity include a shift to larger mines, a move that reflects the success of the large Powder River Basin mines. Productivity increases are also reflected in a decline in mining employment. Over the period 1986 to 1997, coal industry employment in the U.S. decreased by 47 percent from roughly 155,000 to 82,000, while production increased by more than 20 percent.

Productivity increases have had their price. Lower revenues have forced out smaller producers. Mergers and acquisitions have created larger companies which, through economies of scale, can rely on corporate balance sheets rather than project financing. The larger companies have also diversified to spread risk.

The two big uncertainties facing the coal industry today are environmental policies and electric restructuring. Environmental issues that relate to the Clean Air Act Amendments of 1990 (CAAA '90) include acid rain and smog (ground level ozone). Regulations reducing sulfur and nitrogen emissions as a result of the CAAA '90 became effective January 1, 1995. Additional reductions were required on January 1, 2000 and further reductions must be made by 2010. In addition to sulfur dioxide (SO₂) and nitrogen oxide (NO_x), another federally regulated emission associated with coal-fueled electricity is particulate matter. Additionally, mercury (Hg) is currently under federal regulatory review.

Resolution of the debate over greenhouse gas (GHG) emissions will undoubtedly impact the coal industry. Coal-fueled power plants also emit carbon dioxide (CO₂). Identified as a greenhouse gas, CO₂ is at the heart of the global warming debate. Although the U.S. has signed the Kyoto Protocol, dealing with GHG emissions, the U.S. Senate has not ratified the measure. In fact, there seems to be little support for the measure in the Senate.

In 1993, the U.S. administratively adopted a Climate Change Action Plan (CCAP) to stabilize GHG emissions at 1990 levels by the year 2000. Although emission levels in 2000 are expected to be about 15 percent above 1990 levels, voluntary programs by U.S. industry have reduced emissions by over 700 million tons of carbon equivalent. Electric utilities are responsible for more than 75 percent of these reductions. However, rapidly increasing energy consumption in the U.S. is outpacing emission reduction efforts.

There is a strong basis from which to pursue further coal-related technological development. Since the enactment of the Clean Air Act in 1970, power generation from coal has more than doubled while the emission rate (lb/mmBtu) of SO₂ has fallen by about 66 percent and the rate for NO_x has fallen by almost half. The standard for state of the art flue gas desulfurization (FGD) units is 95 to 98 percent SO₂ removal. For NO_x control, the state of the art is 50 percent reduction with low NO_x burners and 80 to 90 percent reduction for selective catalytic reduction. With the use of electrostatic precipitators or bag houses, more than 99.5 percent of particulate matter may be removed from coal generation emissions.

Government and industry have worked together to make substantial improvements in the cost and removal efficiency of pollution control technology applicable to coal plants in use today. As a larger percentage of the nation's existing coal plants are retrofitted with FGD and NO_x controls to comply with Phase II of the Clean Air Act Amendments, emissions will decline significantly from today's levels.

The second challenge to coal's dominance is electric restructuring which is taking place on a state-by-state basis, as well as federally. Generally, electric restructuring means the introduction of competition to certain sectors of the electricity industry, specifically the generation sector.

With restructuring comes the advent of merchant power plants. The need for new power generation in the U.S. is substantial and the vast majority of planned generation plants are smaller, gas-fired, units. Although coal is a cheaper fuel, the capital costs of gas-fired turbines are usually less than coal-fueled units.

While coal will likely place second to natural gas in terms of new generation units, coal is expected to remain the primary baseload fuel for U.S. electric generation for many years to come. However, there is little doubt that the electric generation industry is entering a period of intense price competition, increasing fuel price volatility and movement away from long-term fuel supply contracts.

Given the importance of coal-fueled generation to the nation's electricity grid, and consequently to the economy, it is no exaggeration to say that addressing the environmental concerns relative to continued coal usage is an essential challenge of this decade.

The nation's Clean Coal Technology (CCT) program is a partnership between government and industry begun in the mid 1980's. The program has fostered a number of advances in emission control technology, as demonstrated in 38 pioneering projects. Chief among these are fluidized bed combustion systems, which not only reduce SO₂ and NO_x emissions but work to eliminate waste streams, as well. Existing power plants are being re-tooled for environmental compliance. Future plants will feature improved fluidized bed combustion, integrated coal gasification/combined cycle generation, coal-to-methanol processes and advanced turbines. Research related to GHG concerns will impact coal usage and is focused on carbon sequestration.

Additionally, the U.S. Department of Energy is pursuing a project designated as "Vision 21", a zero emissions energy plant slated to become a reality by 2015. Vision 21 is capable of producing electricity and an entire suite of products from a wide variety of fuelstocks: primarily coal, but including oil, natural gas, biomass and municipal waste.

Private sector initiatives are also underway to produce zero emission power from coal. Such projects seek not only to produce coal-fueled generation with zero emissions but to double current efficiencies. Continued regulatory, administrative and financial support for coal-related research is essential if the U.S. is to benefit from the nation's vast coal resources.

COAL STRATEGY STATEMENT

Coal is the most plentiful fossil energy resource in the U.S. Coal generates well over half the nation's electricity. It is economically, as well as environmentally, imperative that technology continues to be developed to address coal combustion efficiency, emission concerns and the viability of this resource.

**National Energy Strategy
Background Paper - 2001
Renewable Energy**

Categorized under the heading of "renewables" are a number of non-fossil, non-nuclear fuels, with widely varying characteristics as to efficiency, costs, and environmental impacts.

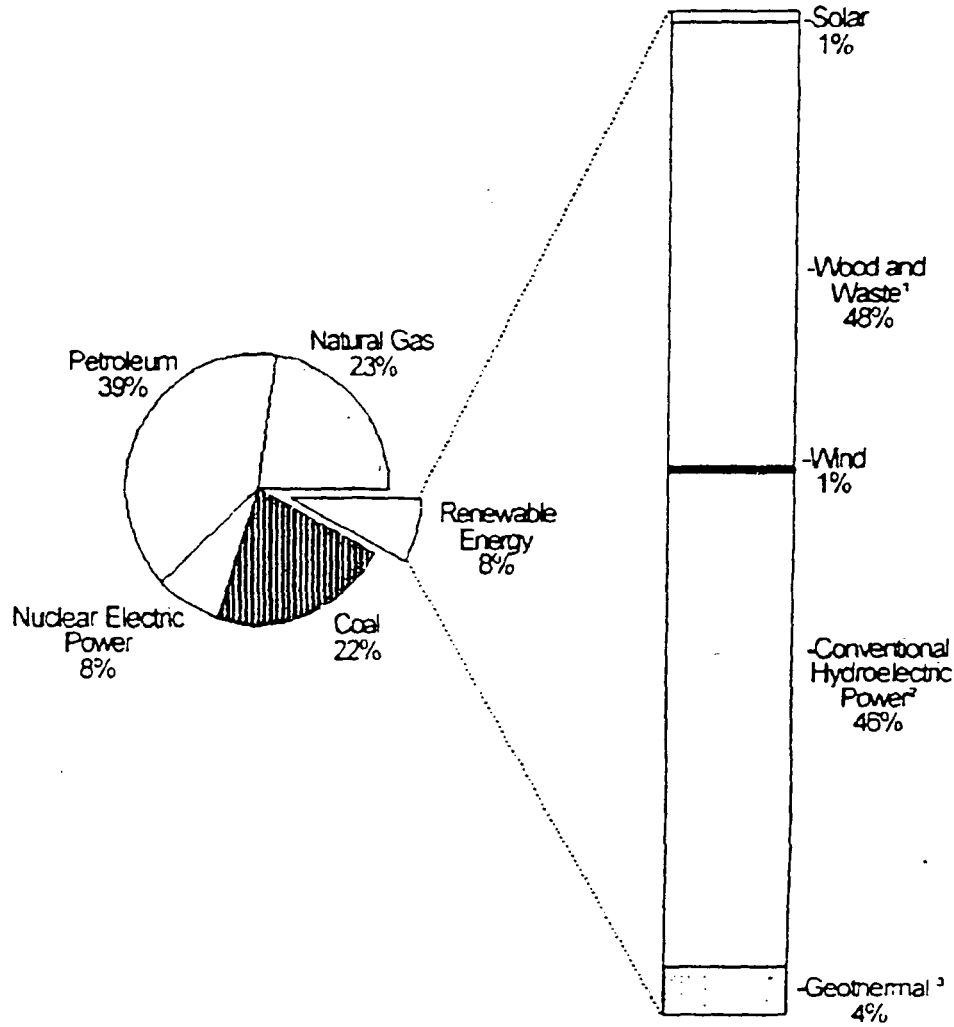
Renewable energy accounts for about 8 percent of U.S. energy consumption. The nation's primary renewable energy sources are wood and wood waste (48 percent) and conventional hydroelectric power (46 percent). Geothermal power makes up 4 percent of the renewable power used in the U.S.; solar and wind each account for 1 percent of renewable power. Figure 5.1 Renewable Energy as a Share of Total Energy, 1999, illustrates the component sources of U.S. renewable energy sources.

Renewable energy resources are predominantly located in the Southern and Western parts of the nation. Federal power authorities have long harnessed hydropower in the Tennessee Valley and in the Pacific Northwest. Wood and wood waste from the forest products and paper industries makes Deep South states like Alabama and Georgia leaders in biomass energy.

As Figures 5.2. Contiguous U.S. Annual Wind Power Resources; 5.3, Contiguous U.S. Annual Average Daily Solar Resources; and 5.4, U.S. Geothermal Resources illustrate, much of the nation's wind, solar, and geothermal resources are found in the West.

Figure 5.1

Renewable Energy as Share of Total Energy, 1999



¹ Includes ethanol blended into motor gasoline

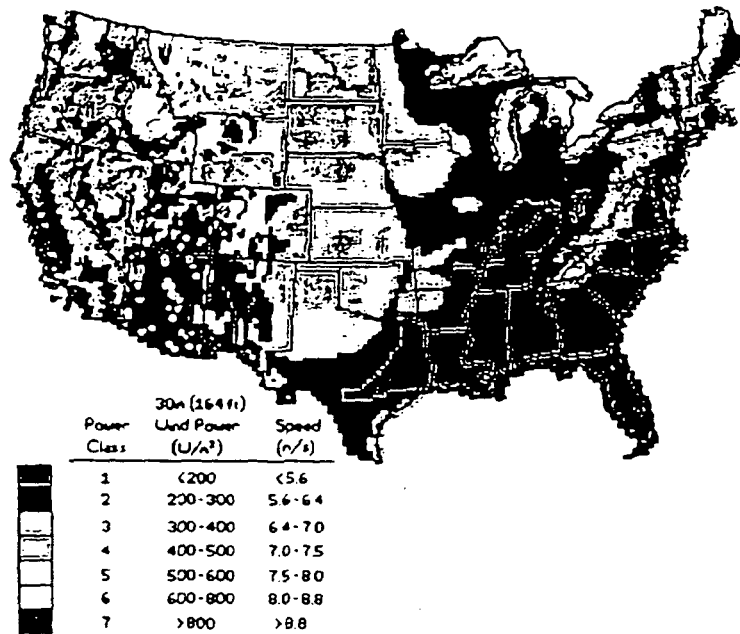
² Includes electricity net imports from Canada that are derived from hydroelectric power.

³ Includes electricity imports from Mexico that are derived from geothermal energy

Source: Annual Energy Review 1999, DOE/EIA - 0384 (99) (p. 252)

Figure 5.2

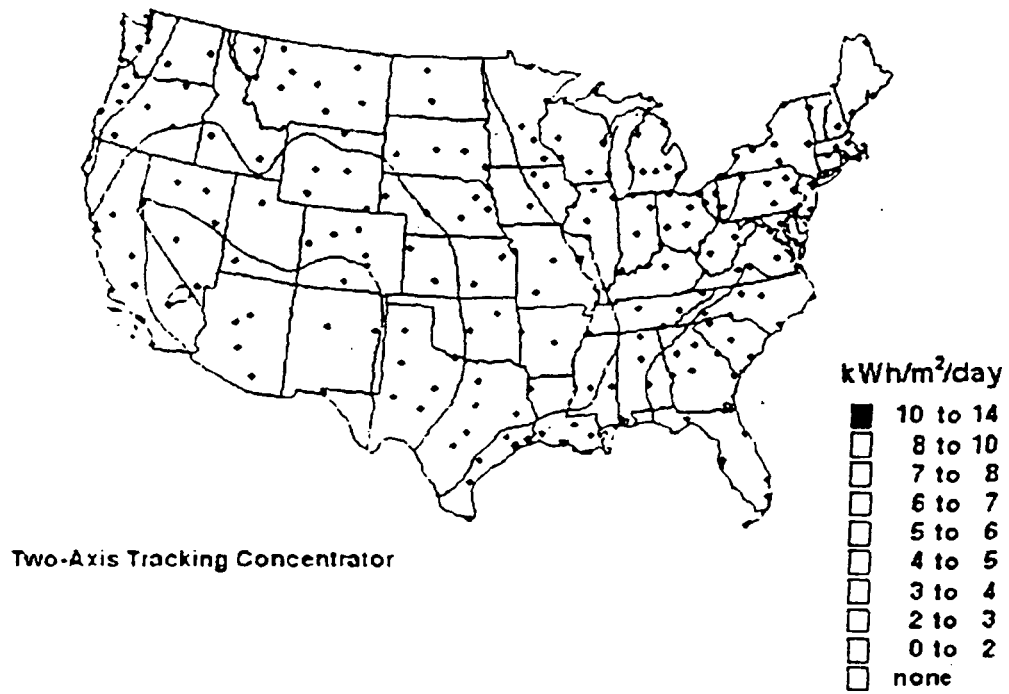
Contiguous U.S. Annual Wind Power Resources



Source: Renewable Energy Issues and Trends 1998; DOE/EIA - 0628 (98) (p.48)

Figure 5.3

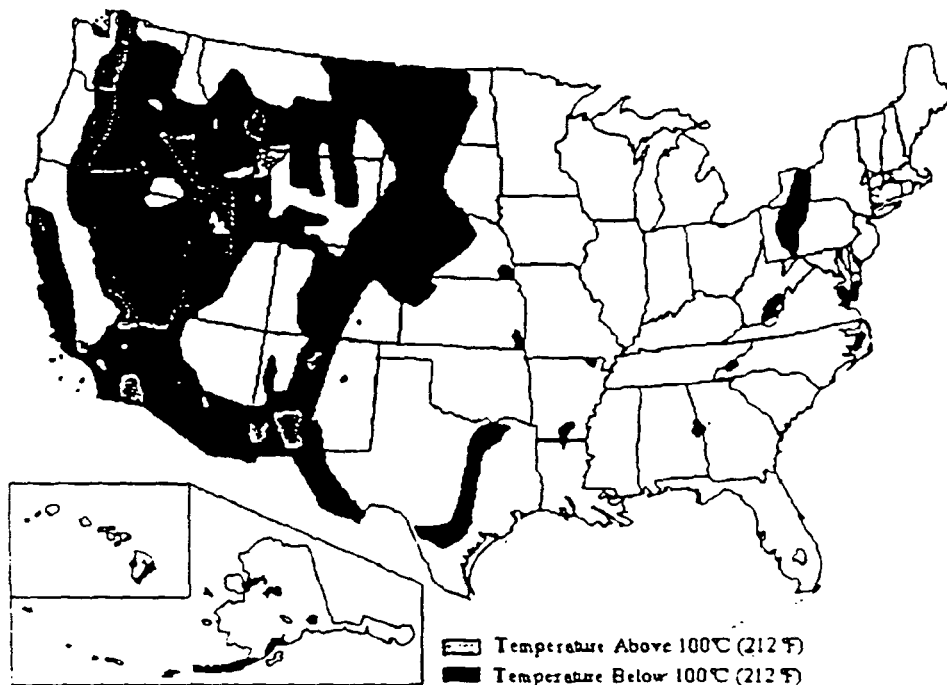
Contiguous U.S. Annual Average Daily Solar Resources



Source: Renewable Energy Issues and Trends 1998; DOE/EIA - 0628 (98) (p. 48)

Figure 5.4

U.S. Geothermal Resources



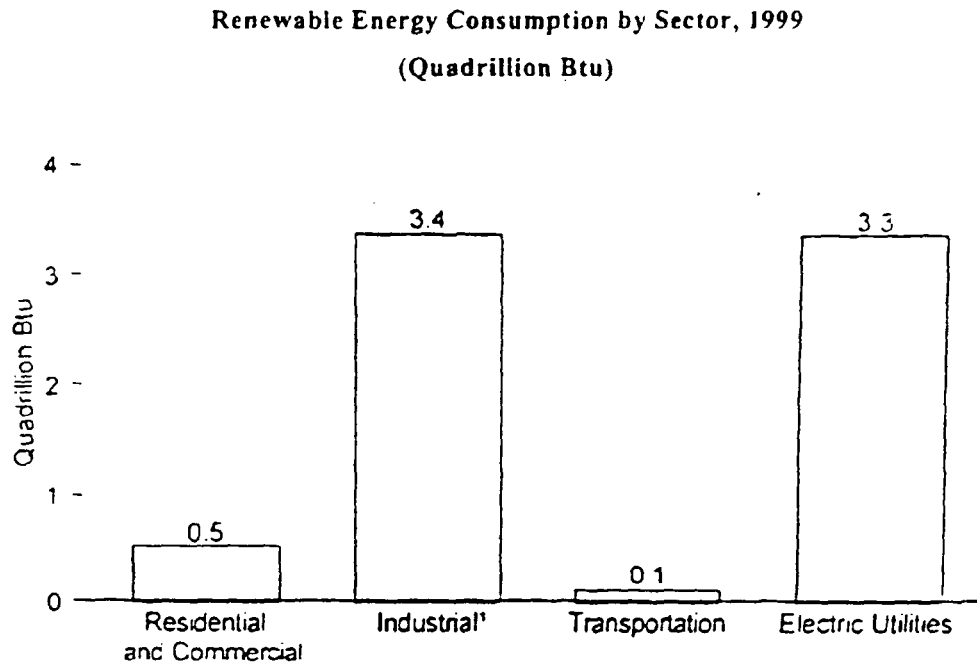
Source: Renewable Energy Issues and Trends 1998; DOE/EIA-0626 (98) (p. 49)

Even though concentrated in the South and West, renewable energy sources are found throughout the nation. The forest-related industries in states like Maine and Michigan make use of biomass for power and process heat purposes. The Midwest is the source of more than half of the nation's ethanol.

Although not the leading use of renewable energy (that distinction goes to Washington state with its extensive use of hydropower) California might best be called the "Renewable Energy State." It has the distinction of being the only state to generate electricity from all the major types of renewable energy: hydropower, biomass geothermal, wind, and solar.

The industrial and electric utility sectors are by far the largest consumers of renewable energy in the United States, accounting for 92 percent of renewable energy consumption. Residential and commercial consumers account for 9 percent of renewable energy use in the United States, while the transportation sector consumes only 1 percent of the nation's renewable energy, virtually all of it ethanol (biomass). Figure 5.5 illustrates Renewable Energy Consumption by Sector for 1999.

Figure 5.5



Source: Annual Energy Outlook 2000; DOE/EIA - 0383 (2000) (p. 254)

The industrial sector, including non-utility power producers, uses primarily wood and wood wastes (85 percent) with some geothermal (9 percent) and small amounts of hydropower (3 percent) and solar/wind (3 percent). Virtually all the renewables used by electric utilities to generate power in 1999 was hydropower. Renewable use by the residential and commercial sectors was mostly wood (83 percent) with a small amount of solar (17 percent).

Hydropower, the nation's leading renewable, is sometimes classified as a "conventional fuel" rather than as a renewable. Hydropower is used to generate electricity by utilities, cogenerators, independent power producers, and small power producers. Hydropower has long been a supply of inexpensive power, however the relicensing of a number of hydroplants is being subjected to increasing scrutiny as environmental concerns, based on the requisite damming of otherwise free-flowing rivers, are raised. Additionally, because there are no new sites for large dam hydroelectric facilities under consideration, and there is discussion of removing some dams, it is unlikely that energy production from hydropower will increase.

Biomass is organic non-fossil material of biological origin. The largest category of biomass is wood and wood waste. Included in this category is wood generated from timber harvesting and processing as well as liquors and sludges from pulp and paper operations. Municipal solid waste, as well as landfill and digester gas, are considered biomass fuels, as are agricultural byproducts/waste, sludge waste, and waste alcohol. Tires are also classified as biomass by the DOE.

In 1999, biomass consumption was up overall but consumption of biomass for electric generation was down. This reflects the fact that industrial process heat applications are utilizing more biomass, especially in the pulp, paper and forest industries. The forest industry uses waste wood by-products for drying, kilns, steam and electricity.

The average sawmill produces enough wood waste to exceed its own energy requirements by 10 to 30 percent. Wood for energy may cause price increases for forest, pulp, and paper industries for competing uses for the resources.

Location is a consideration in using biomass and especially wood wastes for electricity generation. Transportation to the combustion site can be expensive, as can the transmission of biomass-generated electricity to power consumers. Additionally, the combustion of wood for home heating purposes can cause air quality problems.

Ethanol is the only renewable energy source used by the U.S. transportation sector. About 3 million gallons of gasoline equivalent of ethanol was used in the United States in 1999; more than 42,000 times that much gasoline was used.

Geothermal energy is used to generate electricity when water or steam is extracted from geothermal reservoirs in the Earth's crust and supplied to steam turbines. A geothermal heat pump may be used for year-round heating and cooling, as well as to provide hot water during some parts of the year. The electric utility, industrial and residential/commercial sectors all utilize geothermal energy but 84 percent is used by industry.

Wind energy generates electricity. Promoted through state and federal tax credits, the wind industry has experienced technical, as well as environmental, problems. Technology has not been able to significantly bring down costs as hoped, and the reliability and performance of wind generating units have been problematic. Environmental problems like visual obstructions, bird kills and noise pollution have been drawbacks to the wind power industry. New projects are underway in Texas, Minnesota, Vermont, Hawaii, and Iowa which may address these problems.

Solar power accounts for only 0.08 percent of the energy consumption in the United States. Photovoltaic power is electricity generated from sunlight through solid state semiconductor devices. This power is used in remote areas for purposes like radio communications and navigational aids.

Solar thermal energy uses the heat of the sun to heat a medium, which may then be used as a heat source or to generate electricity. The most prevalent end use of solar thermal energy in the United States (92 percent) is by the residential sector to heat pools. Eight percent of solar thermal energy is used to heat water and for other uses.

There is another potential source of energy, usually referred to as an alternative energy source, that bears discussion. Fuel cells currently under development and commercialization produce energy for use as electric power or as a transportation fuel for electric or hybrid vehicles. Fuel cells convert the chemical energy of a fuel directly into electrical energy, without combustion and the related emissions. Hydrogen and oxygen are supplied to the fuel cell externally. Federally supported research in the United States is competing with foreign interests to commercialize a viable fuel cell for distributed energy, as well as for transportation purposes.

The outlook for renewable fuels is cloudy. The billions of dollars committed to research and development of renewables by the U.S. government since the oil crises of the 1970s have not delivered the desired efficiency or price breakthroughs to allow renewables to significantly penetrate energy markets.

The differences between renewables and conventional fuels may only be highlighted with electric restructuring. The primary purpose of restructuring is to introduce competition to the generation sector, thereby lowering prices to consumers

Restructuring is likely to favor conventional fuels, particularly natural gas, over renewables. Fossil energy is efficient and, with improving technology, growing cheaper. Moreover, the physical plant for a project like electric generation from natural gas is much less capital-intensive than a comparable renewable energy plant. Renewable energy from non-utility generators may sell at a price two and one half times the average wholesale price of electricity.

As electric restructuring is adopted by states, renewable portfolio standards (RPS) are being included in the legislation. The RPS provision usually requires that a certain percentage of total retail electricity sales be generated at facilities using non-hydroelectric renewable energy sources. Credits for qualifying renewable generation could be used, saved or sold. The Administration's restructuring bill before Congress in 2000 involves a price cap on the sale of renewable credits and a sunset provision after 15 years

Certainly the reduction of air emissions generated by fossil fuels is a goal that may be balanced against the higher cost of renewables. Analysis may be required to demonstrate the most economically efficient means of reaching clean air goals. The promise of changing the basis of electricity generation, from combustion to chemical power generation without air emissions is virtually irresistible.

RENEWABLE ENERGY STRATEGY STATEMENT

Renewable energy sources are characterized by a broad range of technologies, costs, efficiencies and environmental concerns. Recognizing this spectrum of resources, it shall be the strategy of the United States to institute a long range, stable Renewable Energy Development Program that identifies and assists renewable energy sources from research and development through demonstration projects and commercialization in a cooperative effort among industry, higher education and the national laboratories.

Renewable energy resource development must be ranked and funded on the basis of factors including energy efficiency, economic competitiveness, environmental impacts, and technological adaptability. Part of this program, and critical to its success, is federal development of alternative technologies that improve renewable energy efficiencies, cut costs, and assist in integrating renewable energy into existing energy systems.

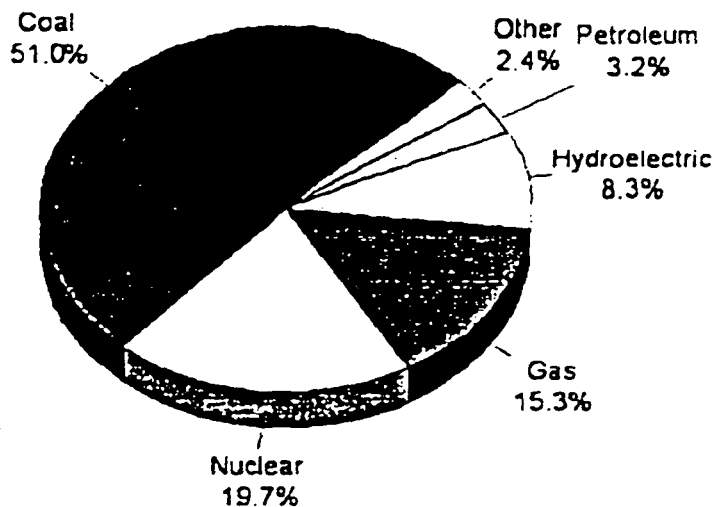
National Energy Strategy Background Paper - 2001 Electricity

The electricity industry in the U.S. is a \$240 billion a year business. Electricity is used by residential (households), commercial (businesses, malls, hospitals) and industrial (manufacturers) consumers and others. As illustrated in Figure 6.1 - 1999 Electric Generation by Fuel Type, electric power in the U.S. is generated primarily by coal (51 percent), while nuclear power accounts for roughly 20 percent of generation, natural gas for 15 percent, hydropower for 8 percent and petroleum for 3 percent. Renewables other than hydropower produce 2 percent of the nation's electricity.

Figure 6.1

1999 Electric Generation by Fuel Type
(By Percentage)

Industry Total = 3,691 Billion Kilowatthours

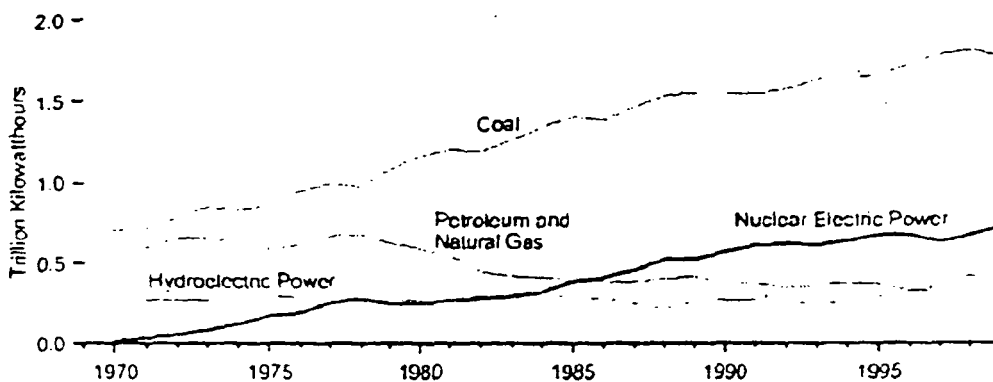


Source: DOE/EIA (<http://www.eia.doe.gov/cneaf/electricity/epav1/fig4.html>)

As Figure 6.2 indicates, the use of coal as a generation fuel has nearly tripled since 1970, while the use of oil has decreased. Notably, nuclear power generation has also increased significantly over the last 30 years.

Figure 6.2

US Electric Generation by Fuel Type



Source: Annual Energy Review 1999: DOE/EIA - 0384(99) - (pg. 214)

As the second largest source of U.S. electric generation, nuclear power is an essential part of the U.S. energy mix. Nuclear plants serve the nation's baseload demand, operating constantly for extended periods at low average cost. Further, since nuclear plants do not burn fuel, they emit no combustion by-products into the atmosphere. As electric deregulation evolves, it is important that nuclear plants be recognized for their clean air contribution to the nation's electricity supply and not disadvantaged in efforts to promote emission reductions for other fuel generation.

Nuclear plants in the U.S. were originally licensed by the federal government to operate for a period of 40 years. Scheduled refueling operations occur at least once every two years, providing regulators and nuclear plant operators regular opportunities for thorough inspections, maintenance and refurbishing.

In part on the basis of these regular, detailed inspections, federal regulators have begun extending nuclear plant licenses for an additional 20 years on a plant-by-plant basis. The Nuclear Regulatory Commission recently granted operating license extensions to five nuclear reactors in Maryland and South Carolina and other utilities plants to file for relicensing of an additional 23 reactors in the near term.

Federal statutes also provide that, over the course of the life of a nuclear plant, regular contributions are made to a decommissioning fund. At the conclusion of the plant's operation, the decommissioning fund finances regulated decommissioning activities.

By federal statute, the U.S. Department of Energy is required to locate, build and operate a geologically suitable repository for used fuel from commercial nuclear plants. In return for payments by nuclear electricity consumers into the federal Nuclear Waste Fund, DOE was obligated by law to begin accepting used nuclear fuel by January 31, 1998. Despite more than \$15 billion in payments and interest into the Nuclear Waste Fund, DOE has not yet begun accepting used fuel.

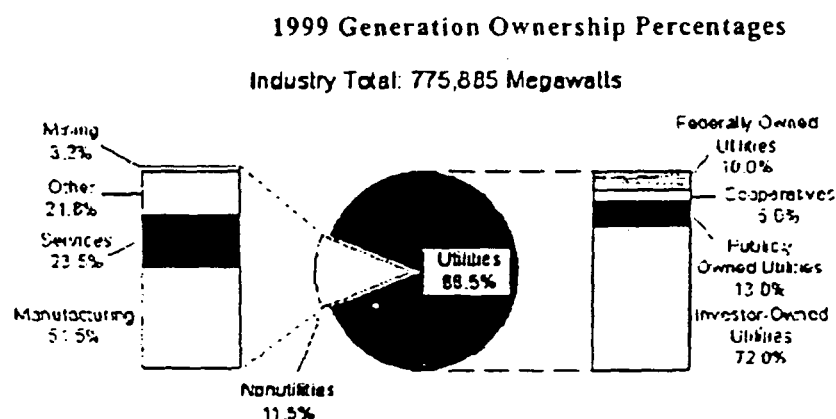
The development of the repository is 13 years behind schedule and no site has been selected for an interim storage facility. Site characterization for a repository at Yucca Mountain, Nevada continues and the earliest date for fuel acceptance is 2010. Several utilities have been forced to build additional fuel storage capacity at their nuclear power plants at an additional cost of millions of dollars.

There are 104 nuclear plants in the U.S., concentrated primarily in the eastern half of the nation. Like other types of electric generation, nuclear plants are owned and operated by investor owned utilities (IOUs), private power generation investors, and federal power, as well as municipal entities.

Overall, 71 percent of the electricity consumed in the U.S. is generated by IOUs. In 1999, non-utility generation was 17 percent. Federal power entities generated nine percent, while municipal power authorities generated three percent.

Rural electric cooperatives provide service to consumers in 46 states and two-thirds of the counties in the U.S. Although they generate only about four percent of the nation's power, consumer-owned electric cooperatives own about half of the distribution lines in the U.S., serving seven percent of the load. Figure 6.3 demonstrates generation ownership percentages.

Figure 6.3



Source: DOE/EIA (<http://www.eia.doe.gov/cneaf/electricity/epav1/fig2.html>)

The U.S. electricity system is currently in the midst of being restructured. In fact, the industry has been in turmoil for more than two decades, which is in marked contrast to the twenty-five years immediately following World War II. During the earlier period, the utility industry was virtually defined by vertically integrated systems that generated electricity at large fossil-fueled or hydropower stations, transmitted the power over high voltage networks and delivered it to all types of customers. While municipal power authorities and rural electrical cooperatives distributed power to end users, most of their power was generated by IOUs and sold to them through the wholesale market.

A regulatory scheme had developed which granted the federal government oversight of the wholesale market and the transmission sector (except in Alaska, Hawaii and parts of Texas), while the states regulated retail sales and service territories. The regulatory relationship is based on a regulatory compact. The utilities agree to be regulated in return for a fair rate of return in investments, established by the state regulatory body. The utility gets a franchise from the local government, an agreement to use public rights-of-way, in return for paying that franchise and agreeing to serve customers in that area.

The national (lower 48 states) transmission grid is the interconnection of generators and transmission systems. There are, in fact, three separate interconnects -- the Eastern interconnect, the Western interconnect and a Texas interconnect. Power trading is largely limited to transactions inside each of the three specific regions due to physical constraints. Alaska and Hawaii are not part of the interstate grid.

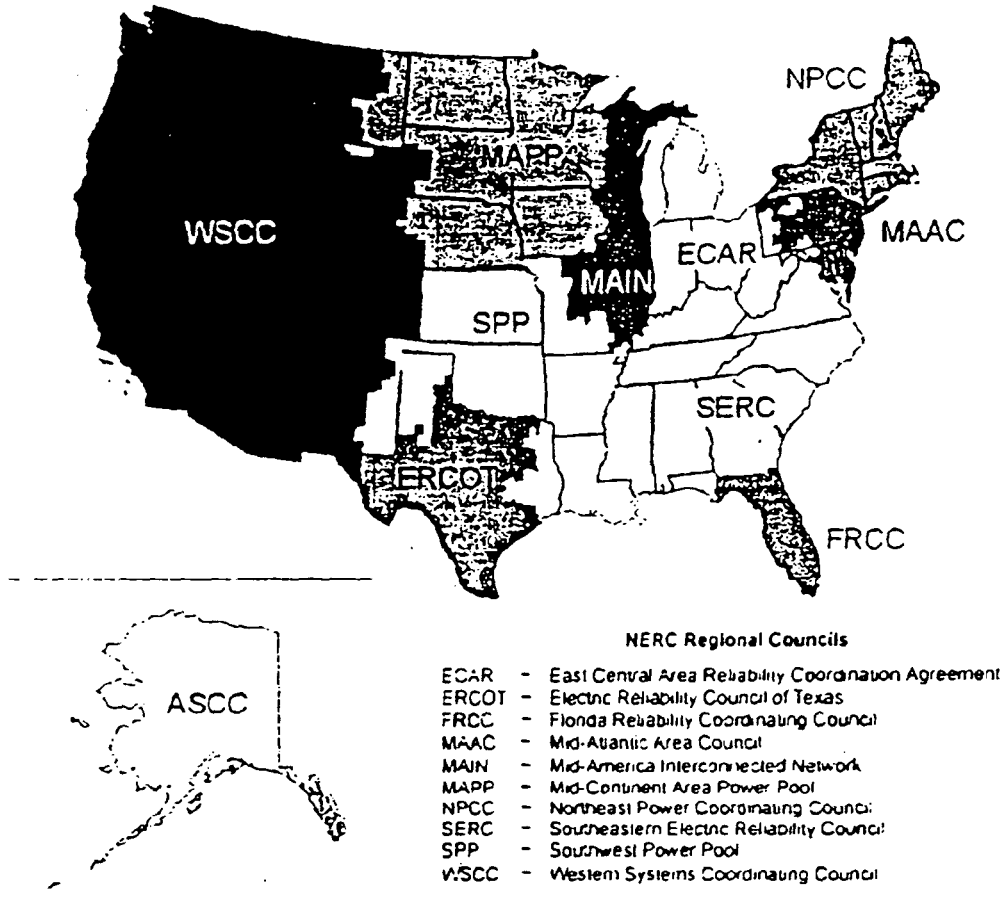
The great Northeastern Blackout of 1965 led to an increased emphasis on reliability and the formation of the North American Electric Reliability Council (NERC). Comprised of ten regional reliability councils and an affiliate (Alaska), as shown in Figure 6.4, the members of NERC represent all segments of the electricity industry and account for virtually all the electricity supplied in the Continental U.S., Canada and part of Mexico. The regional reliability councils coordinate planning, construction and operations to improve reliability.

The post-war period was a good one for the electricity industry. Technological advances resulted in declining costs. Increasingly larger generating units improved efficiency and nuclear power plants were expected to produce low cost electricity. Demand was steadily growing and utilities were in an expansion mode.

This stability ended in the volatile 1970s, when the energy crises of that decade had a profound impact on the industry. Fuel prices drove power prices up and, in response, demand decreased. Further, inflation and the high cost of capital slowed plant construction, especially for large-scale nuclear power plants.

Figure 6.4

The North American Electric Reliability Council
in the Contiguous United States



Source: U.S. DOE, EIA (http://www.eia.doe.gov/neaaf/electricity/chg_str_fuel.html#fig02.html)

Increases in the price of electricity led generally to more intense oversight by state regulators at the same time that federal regulators were imposing additional environmental and safety regulations. At the federal level, clean air regulation particularly impacted coal-fired utilities. The accident at the Three Mile Island plant in Pennsylvania led to the imposition of detailed and costly federal safety regulations on the nuclear power industry. In the wake of Three Mile Island, the average construction time on a nuclear power plant went from 3.5 to 11 years.

As the price of electricity went up, the relationship between utilities and state regulators became adversarial. Public service commissions conducted prudency reviews, which disallowed utilities from claiming billions of dollars of plant construction in the rate base. Seeking to lower costs, state regulators also imposed demand-side management programs and introduced outside stakeholders into the utility planning process.

In 1978, responding to the energy crisis and rising prices, Congress addressed the nation's fear of energy shortages with the National Energy Act (NEA), a set of five energy bills including the Powerplant and Industrial Fuel Use Act (FUA) and the Public Utility Regulatory Policies Act (PURPA). Acting under the wrongful impression that natural gas was a depleting resource, the FUA limited the use of oil and gas for industrial applications including power generation. The FUA, coupled with the relatively low cost of coal, led to marked increases in coal-fired generation.

As a dramatic alternative to the traditional generation paradigm, PURPA favored renewable fuels and encouraged the use of cogenerated power. PURPA requires electric utilities to interconnect with, and purchase cogenerated energy from, qualifying cogeneration and small power production facilities so long as avoided-costs tests were met. PURPA introduced competition, on a limited basis, to the wholesale electricity market.

The combination of new PURPA power availability and slackening of demand growth led utilities to slow down new power plant construction. During the 1990's most new generating capacity was provided by cogeneration or independent power producers.

The next major change came in 1992 with Congressional passage of the Energy Policy Act (EPAcT '92). Against a backdrop of telecommunications and natural gas industries restructuring, EPAcT '92 opened access to the transmission network and created a class of wholesale generators exempt from the restrictions of the Public Utility Holding Company Act (PUHCA). (A 1935 federal statute, PUHCA restricts companies in utility holding company systems from engaging in business activities not related to the electric utility industry.) EPAcT '92 called on the Federal Energy Regulatory Commission (FERC) to define exempt wholesale generators (EWG) and ensure availability of transmission facilities.

In April 1996, FERC issued two rules to address the wholesale competition issue. In Order 888, FERC requires all jurisdictional utilities that own, control or operate interstate-connected transmission facilities to file non-discriminatory open-access tariffs to apply to parties contracting for transmission service. Order 888 also encourages regions to create Independent System Operators (ISO) to eliminate discriminatory practices in providing access to bulk power markets.

Further, FERC addresses the issue of stranded costs in Order 888. Without a mechanism to recover prudently incurred costs, the financial viability of utilities would be undermined and any transition to a competitive market jeopardized. Therefore, FERC provides for direct assignment of stranded costs to departing wholesale customers.

FERC Order 889 establishes an Open Access Same-Time Information System (OASIS) and related standards of conduct. Public utilities that own, control or operate interstate transmission facilities are required to provide an Internet bulletin board detailing real time information about transmission prices and the availability of capacity on transmission lines. Order 889 also requires that transmission service functions be separated from generating and marketing functions.

All of these changes, market as well as regulatory driven, increased the demand for competition in the electric industry. Independent power producers wanted greater access to customers; large energy consumers wanted the ability to shop around for the best price and service; utilities wanted the ability to expand beyond their traditional service territories. The result is an evolving restructured electricity industry. Individual states are pursuing or considering restructuring depending on the circumstances within the state.

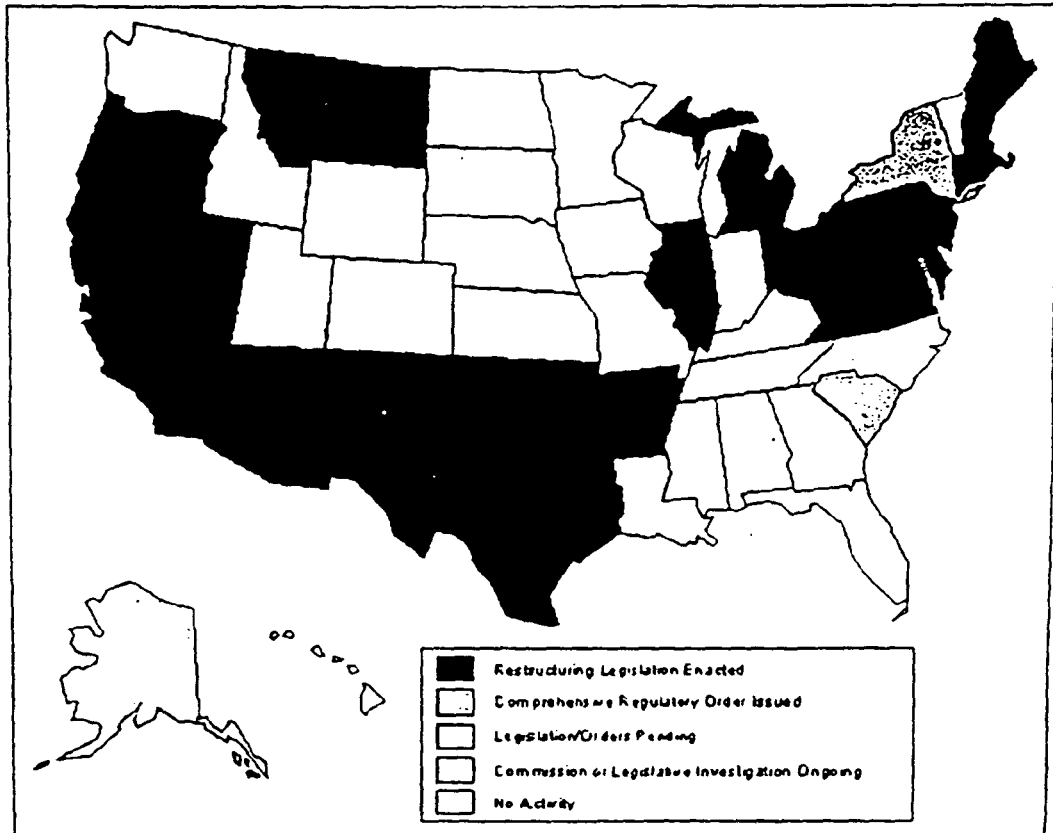
However, restructuring is not deregulation. It may better be referred to as redefined regulation, because regulators have moved, generally, from price setting to market oversight.

Although the generation and retail sales of electricity are being opened for competition, dramatic changes in both the transmission and distribution sectors are necessary to assure that the advantages of competition reach consumers. Indeed, restructuring relates to unbundling generation companies (sometimes referred to as gencos) as separate entities and assuring open access to transmission lines, as well as a retail market for the competitively generated power.

Legislatively, states are leading the effort in restructuring. California was among the first to pass legislation authorizing competition for retail electricity sales. As of mid 2000, twenty-three states and the District of Columbia have legislatively addressed the issue, while another has restructured by regulatory order. However, some states, especially rural states with low cost power, maintain that efforts to restructure or deregulate will only pose unnecessary increases to consumers. Figure 6.5 illustrates the status of state restructuring.

Figure 6.5

Status of State Restructuring
November 2000



Source: US DOE, EIA (http://www.eia.doe.gov/cneaf/electricity/chg_str/regmap.html)

The form restructuring is taking in most states is establishment of retail energy providers (REPs) which offer electric service and possibly other services directly to customers. Distribution to customers is through the established utility, now known as the "wires" company. The REPs can generate electricity themselves or buy it for resale, and they contract with the wires company for delivery. Transmission of energy between power plants and the wires companies is managed by regional transmission organizations (RTOs).

Customers, as a result, will no longer be dealing with their traditional utility but a retail energy provider. In addition to new competitors, utilities have their own retail energy provider subsidiaries offering services to customers.

Given the wide array of stakeholders, the passage of electricity restructuring legislation is a notable political achievement. Even so, many issues are left by legislation to be resolved by state commissions. In Texas, the state's public utility commission has a two year schedule in place to deal with the issues raised by the Texas restructuring legislation in advance of competition, which is scheduled to begin in that state in January 2002. Leading the list of topics to be addressed are allocation and collection of stranded costs, separation of competitive energy services, market power mitigation and code of conduct, customer protection rules and rate of return for transmission and distribution systems.

On the federal front, Congress has not yet passed restructuring legislation. Some argue that national restructuring legislation is required to assure efficiency and reliability. It is feared that regional advantages are being lost in the state-by-state restructuring. Others feel that a federally mandated program could harm important state interests.

Arguments as to the voluntary or mandatory nature of regional transmission organizations are part of the discussion. The role of FERC as an oversight body for the market is also subject to Congressional debate. Questions relative to FERC's jurisdiction over transmission, market power, utility mergers and environmental protection have been raised. At least one member of FERC has called for a federal interconnection policy beyond the current FERC policy, in order to assure that new generation has open access to the grid.

In the meantime, the industry is moving ahead. Whole classes of new players have developed. Independent power producers (IPP) have accounted for virtually all new generation planned in the U.S. in recent years, and utility affiliates also have several thousand megawatts of capacity in construction or planning. Moreover, a number of IPPs are affiliated with traditional utilities. Aggregators are actively selling large blocks of power, while marketers are making large power buys.

Mergers and acquisitions have characterized the electricity business for the last few years. Some involve companies that have previously worked in the natural gas industry; these combinations are forming so-called "pipes and wires" or "convergence" companies.

As the transmission sector considers a common carrier concept, questions relating to operation management, emergency response, reliability and planning must be addressed. Debate relative to the structure of the transmission sector relates to two RTO models: independent system operators (ISO) and independent transmission companies (ITC).

FERC Order 888 favored the ISO approach in which a non-profit organization works like an air traffic controller for a given regional transmission system. Owned by utilities, with a board that includes outside stakeholders, the ISO would take over security and operational control of the transmission system. However, there are questions as to whether a non-profit ISO structure can function efficiently.

Also known as transcos, ITCs are corporations either with utility owners as shareholders or publicly traded stock. Although ITCs may be structured to have non-voting input from other stakeholders (e.g. municipal power companies, co-operatives, power marketers and IPPs), concerns have been raised that owner utilities would receive preferential treatment. Others fear that such companies may not have the right incentives to make the overall market efficient. Some believe that the formation of RTOs has not provided protection for consumers.

There are many models under consideration in the U.S. and overseas for structuring generation supply markets. The underlying question is how to assure that consumers - - both at wholesale and retail - - reap the benefits of competition in the generation sector. Two models have dominated debate in this area: poolco and direct access via bilateral contracts. Although some suggest these models as alternatives, they may also co-exist.

A poolco is an institution that uses a power exchange (PX) to bring buyers and sellers together. The PX ranks bids for power sales and purchases until demand is satisfied, setting a "market clearing" price which all sellers receive. Poolcos have been used in markets internationally, but do not allow market participants to make their own deals (or bilateral contracts) other than through outside financial arrangements (e.g. hedging arrangements).

The model for a bilateral contract market in the retail supply sector is the competitive telecommunications market where buyers and sellers arrange personalized service (e.g., cell phone service with roaming and long distance allowances). Detractors claim that this one-on-one interaction is more complicated than the "group" approach allowed by the poolco but tends to produce more competitive prices.

Looking ahead, the biggest single challenge in the distribution sector to a restructured electricity industry is reliability. Both the quality of power and its availability are essential elements of reliability. Both will become increasingly important as the national economy becomes ever more dependent on electricity for applications such as computers and electronic commerce.

Currently, the changing structure of the electricity industry has heightened the need to address reliability problems. Responsibility for reliability is now divided among several market participants including the transmission and distribution companies, marketers, RTOs, and generators. The increasing number of participants in the industry makes reliability coordination more difficult. Finally, the existing transmission and distribution infrastructure is aging and access for new construction is proving difficult.

A recent U.S. Department of Energy study team report on power outages suggested that operational practices, regulatory policies and technical tools are all part of the answer to improved reliability. Operationally, a reliable electricity system will be dependent on redundancy and availability of reserves.

Demand side management (DSM) is the term used for programs that affect the timing and amount of customer usage of electricity. However, customers need a means of receiving real time information on the cost of electricity if they are to respond in an economically rational manner. DSM may be useful in providing flexibility in meeting reliability challenges.

Also, distributed energy resources (DER) (smaller power generation units located to serve discrete purposes or specific consumers) are likely to play an increasingly important role in future generation. A number of smaller units connected to the grid may lend redundancy to the system. One of the appeals of DER is the flexibility it provides consumers. Institutional barriers to DER (e.g. interconnection to the grid) are problems that must be resolved before the potential of DER is realized.

The role of long-term transmission and distribution planning must be recognized and claimed either at regulatory direction or on a voluntary, industry-wide basis. Certainly, regulators may be expected to designate responsibility for reliability. Legislators may well be asked to establish incentives to replace aging transmission and distribution infrastructure and to assure access for new infrastructure construction.

Technology will also play a role in assuring reliability, although the impacts may not even be envisioned at this time. The convergence of the Internet, the nation's telecommunications network and the electric system will, no doubt, further transform the electric industry's infrastructure. Real time monitoring, a digitalized grid and superconductive materials are some of the technologies that hold promise for improving the electricity system.

ELECTRICITY STRATEGY STATEMENT

The U.S. electricity sector today is marked by tremendous diversity; for instance, there are differences in existing electrical networks, the number and types of customers, access to the interstate grid, rates, environmental considerations and fuel usage.

State and local governing bodies are close to consumers, utilities, industries, and are concerned for the economic well being of their states and local communities. They are in the best position to evaluate consumer needs, questions relative to fuel choice, economic development implications, the best manner in which to implement competition, and system reliability. Therefore, implementation of federal legislation that fails to maintain diversity and overrides state legislative or regulatory directives will harm consumers and the economy.

Electricity research and development efforts shall be intensified with regard to energy efficiency, superconductivity, advanced and reasonable environmental controls in power generation, distributed generation, fuel cells and the development of cost-effective renewable supply technologies. The development of safe and efficient electric vehicles shall also continue to be pursued.

Nuclear power must continue as an essential component of the nation's electricity system, providing reliable, clean-air base load power. Neither deregulation policies nor relicensing regulatory delays should be allowed to impair the ability of domestic nuclear plants to continue to provide the nation with emission-free base load power. Further, the federal tax code should be updated to maintain deductibility of decommissioning expenses.

The Department of Energy shall continue to characterize a repository for the disposal of used nuclear fuel and begin to operate such a repository as quickly as is safely possible. The federal government has a legal responsibility to manage commercial reactor fuel. Congress must assure that payments made by law into the Nuclear Waste Fund for construction and operation of a repository under current Department of Energy milestones be available for such purpose.

Responsibility for reliability and long range planning shall be established. Aging infrastructure and access for construction of new infrastructure shall be addressed. Maintaining reliability of the U.S. electricity system shall be a primary goal of policy makers and industry participants, alike.

Bibliography

- United States. Energy Information Administration. 1998 Electric Power Annual.
Washington: GPO, 1999.
- United States. Energy Information Administration. 25th Anniversary of the 1973 Oil Embargo:
Energy Trends Since the First Major U.S. Energy Crisis. Washington: GPO, 1998.
- United States. Energy Information Administration. Alternatives to Traditional
Transportation Fuels 1996. Washington: GPO, 1997.
- United States. Energy Information Administration. Annual Energy Outlook 1999. Washington:
GPO, 1998.
- United States. Energy Information Administration. Annual Energy Outlook 2000.
Washington: GPO, 1999.
- United States. Energy Information Administration. Annual Energy Review 1999.
Washington: GPO, 2000.
- United States. Energy Information Administration. Challenges of Electric Power Industry
Restructuring for Fuel Suppliers. Washington: GPO, 1998.
- United States. Energy Information Administration. The Changing Structure of the Electric
Power Industry 1999: Mergers and Other Corporate Combinations. Washington: GPO,
1999.
- United States. Energy Information Administration. The Changing Structure of the
Electric Power Industry: Selected Issues, 1998. Washington: GPO, 1998.
- United States. Department of Energy. Clean Coal Technology Demonstration Program.
[Washington]: [GPO], 2000.

- United States. Department of Energy. Clean Coal Technology: Reburning Technologies for the Control of Nitrogen Oxides Emissions from Coal-Fired Boilers. N.p.: n.p., 1999.
- United States. Energy Information Administration. Electric Power Annual 1998. Vol. 2. Washington: GPO, 1999.
- United States. Energy Information Administration. Electric Power Monthly, August 2000. Washington: GPO, 2000.
- United States. Energy Information Administration. Emissions of Greenhouse Gases in the United States, 1998. Washington: GPO, 1999.
- United States. Energy Information Administration. Energy in the Americas. Washington: GPO, 1999.
- United States. Department of Energy. Environmental Benefits of Advanced Oil and Gas Exploration and Production Technology. [Washington]: [GPO], 1999.
- Fox-Penner, Peter. Electric Utility Restructuring: A Guide to the Competitive Era. N.p.: n.p., 1997.
- Friedman, N. Richard. "Business Considerations for Distributed Generation: Making the Deal Work." PowerValue May-June 1999: 38-48.
- American Gas Association. Fueling the Future. [Washington]: n.p., 2000.
- United States. Energy Information Administration. Impacts of the Kyoto Protocol on U.S. Energy Markets and Economic Activity. Washington: GPO, 1998.
- United States. Energy Information Administration. International Energy Outlook 2000. Washington: GPO, 2000.

- Interstate Oil and Gas Compact Commission. Investments in Energy Security: State Incentives to Maximize Oil and Gas Recovery. N.p.: n.p., 1999.
- Javetski, John. "Coping With Constant Change." Global Energy Business May-June 2000: 27-32.
- McKinley, Sarah. Collection of documents addressing the impact of distributed generation on energy policy to Lori Cameron, Executive Director of The Energy Council, Dallas, Texas. 27 July 1999.
- American Council for an Energy-Efficient Economy. Meeting America's Kyoto Protocol Target: Policies and Impacts. [Washington]: n.p., 1999.
- United States. Energy Information Administration. Monthly Energy Review, August 2000. Washington: GPO, 2000.
- United States. Energy Information Administration. Natural Gas 1998 Issues and Trends. Washington: GPO, 1999.
- United States. Energy Information Administration. Natural Gas Annual 1998. Washington: GPO, 1999.
- National Petroleum Council. Natural Gas: Meeting the Challenges of the Nation's Growing Natural Gas Demand. 3 vols. N.p.: n.p., 1999.
- United States. Energy Information Administration. Natural Gas Monthly, July 2000. Washington: GPO, 2000.
- United States. Energy Information Administration. Petroleum: An Energy Profile 1999. Washington: GPO, 1999.
- Energy and Environment Analysis, Inc. Pipeline and Storage Infrastructure Requirements for a 30 Tcf U.S. Gas Market. [Washington]: n.p., 1999.

United States. Department of Energy. Powering the New Economy. Washington: GPO, 2000

Applied Energy Group. Reducing Electric Transmission Constraints With Gas-Fired Power Generation. [Washington]: n.p., 1999.

United States. Energy Information Administration. Renewable Energy Issues and Trends 1998. Washington: GPO, 1999.

American Council for an Energy-Efficient Economy. A Review and Early Assessment of Public Benefit Policies Under Electric Restructuring. [Washington]: n.p., 2000.

United States. Department of Energy. Science, Security and Energy: Powering the 21st Century. N.p.: n.p., [1999].

United States. Energy Information Administration. State Electricity Profiles. Washington: GPO, 1999.

American Council for an Energy-Efficient Economy. State Scorecard on Utility Energy Efficiency Programs. [Washington]: n.p., 2000.

The President's Council on Sustainable Development. Towards a Sustainable America: Advancing Prosperity, Opportunity, and a Healthy Environment for the 21st Century. N.p.: n.p., 1999.

National Research Council. Transportation, Energy, and Environment: Policies To Promote Sustainability. [Washington]: n.p., 1999.

United States. Energy Information Administration. The U.S. Coal Industry in the 1990's: Low Prices and Record Production. Washington: GPO, 1999.

National Petroleum Council. U.S. Petroleum Refining: Assuring the Adequacy and Affordability of Cleaner Fuels. N.p.: n.p., 2000.

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B-5

Tripodi, Cathy

From: Kelliher, Joseph
Sent: Tuesday, July 03, 2001 8:30 PM
To: Tripodi, Cathy
Subject: FW: Agenda for Monday's Principals' Meeting



AGENDA1.doc

-----Original Message-----

From: John_Fenzel@ovp.eop.gov\internet [mailto:John_Fenzel@ovp.eop.gov]
Sent: Friday, March 09, 2001 4:10 PM
To: Kelliher, Joseph; Anderson, Margot
Subject: Agenda for Monday's Principals' Meeting

(See attached file: AGENDA1.doc)

Joe and Margot:

I am forwarding the unedited version of the Agenda for Monday's Principals' Meeting, so you can forward it to Secretary Abraham prior to the meeting.

B-5



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Tripodi, Cathy

From: Kelliher, Joseph
Sent: Tuesday, July 03, 2001 7:56 PM
To: Tripodi, Cathy
Subject: FW: Reliability Legislation

 
Reliability Legislation - Core...
XX legislation (short form).d...

-----Original Message-----

From: Dave Nevius [mailto:dave.nevius@nerc.com]
Sent: Thursday, April 12, 2001 6:38 PM
To: Kelliher, Joseph
Cc: lstuntz@sdsatty.com&internet; dcook@nerc.com&internet
Subject: Reliability Legislation

Joe
Linda just sent you a PDF file of a shorter version of reliability legislation that Charlie Curtis had developed when we started this whole process. Attached is a Word version that David Cook developed from that PDF version, in which he included some language to indicate deference to interconnection-wide requests for Variances. [There was a note in the PDF version that indicated some WSCC language would be inserted.]

David developed this short version of the legislation for Shirley Neff of Senator Bingaman's staff when she was working on the Democratic version of a comprehensive bill. Originally she said the NERC language was too long and was going to include only Bingaman's 2 page version that gave FERC all authority over everything. We urged her to include AT LEAST the short form that is attached, even though it lacked some of the additions that the Commission agreed to as this thing evolved. In the final analysis, Shirley included the detailed version in the Bingaman bill, which included everything -- the PTC Amendments, the State Savings Clause, the Regional Advisory Body language, more detailed deference language, etc.

I've also attached an updated version of the Core Principles document that tracks with the Word version. Hope this helps. Call if you have any questions.

Dave

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DOE008-0746

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CORE PRINCIPLES FOR RELIABILITY LEGISLATION

Accreditation of a single North American SRRO

- FERC to approve a single SRRO.
- Procedures for an applicant to apply for SRRO status, and the procedures and requirements for FERC to approve such an application.
- Requires that all system operators be members of the SRRO.
- Provides procedures for the SRRO to modify its procedural, governance and funding rules.

Authority for that SRRO to set and enforce standards

- Specifies the procedures for the SRRO to file with FERC for approval of reliability standards.
- Provides that such proposed standards are to be approved unless FERC finds that they are unjust, unreasonable, unduly discriminatory or preferential, or otherwise not in the public interest.
- Provides that FERC is to give due weight to the technical expertise of the SRRO.
- Gives the SRRO the authority to enforce its standards, subject to FERC review.

Allowance for the SRRO to delegate authority for implementation of standards and enforcement of compliance to regional organizations

- Permits the SRRO to delegate certain authority to regional entities by agreement.
- Such agreements would be filed with FERC for approval.

Funding authority

- Provides for the assessment and allocation of SRRO and regional entity costs to system operators, to be recovered from system users, through a non-bypassable charge.

International arrangements

- Governs international agreements and recognition of the SRRO.

Anti-trust protections

- Provides for a rebuttable presumption that activities undertaken under the Act are in compliance with the antitrust laws.

Transition mechanism

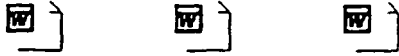
- Provides for the optional filing with FERC of existing standards by NERC and regional councils prior to approval of an SRRO, which FERC could approve and enforce.

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Tripodi, Cathy

From: Kelliher, Joseph
Sent: Tuesday, July 03, 2001 8:45 PM
To: Tripodi, Cathy
Subject: FW: Ultra-deepwater Production R&D



Authorization Kelliher One pager Kelliher Paragraph
language 032901..... 032001.doc 032001.doc

-----Original Message-----

From: Kyle Simpson [mailto:kylesimpson@morganmeguire.com]
Sent: Tuesday, April 10, 2001 2:38 PM
To: Kelliher, Joseph
Subject: Ultra-deepwater Production R&D

Dear Joe:

Here are three brief documents describing the Ultra-deepwater project that we discussed last week. This would be a very important project for our energy future.

Regards,

Kyle.

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DRAFT - modified by Jim Longbottom 19/March/01

ULTRA-DEEPWATER RESEARCH AND DEVELOPMENT PROGRAM

- (a) **IN GENERAL** - The Secretary of Energy shall develop and implement an accelerated cooperative program of research and development to develop natural gas and oil reserves in the ultra-deepwater of the Central and Western Gulf of Mexico. This research and development program shall include close cooperation with consortia of industries, educational institutions, national laboratories and others.

- (b) **PURPOSE** - The purpose of the program shall be to promote research, development, and demonstration of technologies to -
 - (1) Lower the total cost of ultra-deepwater U.S. resource recovery
 - (2) Improve the efficiency of finding, developing, and converting fuel supplies to useable form from ultra-deepwater reservoirs
 - (3) Rejuvenate U.S. energy industry leadership and competitive position in world markets by giving preference to U.S. companies in the program while recognizing energy is a global business
 - (4) Develop high intensity design
 - (5) Accelerate reservoir exploitation
 - (6) Develop subsea production technology
 - (7) Transmit the energy resource to market
 - (8) Ensure environmental management

- (c) **AREAS** - In carrying out this section, the Secretary of Energy shall consider ultra-deepwater natural gas and oil production research and development for:
 - (1) New Systems Architecture
 - (2) High Intensity Design Engine
 - (3) Component Optimization Modules
 - (4) Reservoir Property Verification Methods
 - (5) Subsea Gathering Systems
 - (6) Reservoir Monitoring and Control Methods
 - (7) Riserless Drilling Systems
 - (8) Consolidation While Drilling
 - (9) High Capacity Production Wells
 - (10) Low Cost Intervention Systems
 - (11) Subsea Processing & Flow Assurance

(12) Hydrocarbons to Clean Fuel, Feedstock, Products

(13) Offshore Power Generation/Transmission

(14) Greenhouse Gas Sequestration

(15) Well Control with Near Zero Spill Volume

- (d) **RESEARCH, DEVELOPMENT, and DEMONSTRATION PROGRAM PLAN** - Within 180 days after the date of enactment of this section, the Secretary of Energy shall prepare and submit to the Congress a five year program plan to guide activities under this section. In preparing the program plan, the Secretary shall consult with appropriate representatives of the natural gas industries, relevant educational institutions and other entities involved in ultra-deepwater program. A closed consortia design competition approach is recommended to expedite bold and decisive results.
- (e) **IMPLEMENTATION** - The Secretary of Energy shall have primary responsibility for ensuring the five year plan provided for in subsection (d) is implemented as intended by this section. A U.S. Energy Research Center should be established on the U.S. Gulf Coast to coordinate this program with the energy industry.
- (f) **REPORTS TO CONGRESS** - The Secretary of Energy shall report to the Congress annually on the status and results to date on the implementation of the research and development program plan.
- (g) **AUTHORIZATION OF APPROPRIATIONS** - There is authorized to be appropriated to the Secretary of Energy for carrying out this section up to \$2 billion through fiscal years 2002 through 2009. The Secretary may only release such sums when cost sharing amounts are contributed from a source outside the federal government.

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Ultra-Deepwater Central and Western Gulf of Mexico: America's Challenging Energy Frontier

The largest oil and natural gas resource ever discovered in the United States lie beneath the ultra-deepwater of the Central and Western Gulf of Mexico. The pace of development of the resource and the realization of ultimate contribution that can be made to the energy security of the United States is impaired by the enormous cost and physical challenges to the development of these resources. Lowering the cost and improving the efficiency of developing this new resource must be a priority of our national energy policy.

The size of the resource in the ultra-deepwater Gulf of Mexico is massive. Ultra-deepwater development, in principle, could change the rate of domestic oil production from its current level (5.9 million barrels per day) to approach or exceed the peak achieved in 1970 (9.6 million barrels per day). The possible additions to daily natural gas production are equally impressive. Barely at the nascent stage, expected reserves are more than 20 billion barrels of oil equivalent, the same magnitude as all Alaska reserves discovered to date. This is only the beginning. Total reserves will likely be multiples of this as exploration drilling moves from 5,000 to 10,000 foot water depths, by far larger than any other remaining or likely-to-be-discovered resource anywhere in the United States.

The ultra-deepwater Gulf of Mexico will also make a profound direct contribution to the domestic natural gas and electric power supply. Natural gas, which to date has been mostly and inconveniently in the ultra-deepwater will ultimately be the prize. These vast new reserves will increase our supply of natural gas. One can also imagine seafloor based offshore electric power generation stations sending electricity to shore and improving the efficiency and aesthetics of offshore developments while dramatically reducing safety and environmental concerns.

Not unlike the collateral benefits of the NASA space program or California's Silicon Valley, the development of technology for the ultra-deep offshore will bring about a renaissance in American technological leadership worldwide. Literally thousands of new enterprises will be spawned, and their global contribution will go way beyond the mere extraction of hydrocarbons.

Because ultra-deep offshore resources are unquestionably the largest ever discovered worldwide, a successful resolution in the U.S. Gulf of Mexico will spread far and wide. Developments in the much larger Mexican part of the Gulf of Mexico and very large discoveries off Nova Scotia will benefit the United States directly. Equally important, discoveries elsewhere, from West Africa to South America and the Far East, will provide energy self-sufficiency to potential competitors for energy resources as the economies of the world's developing nations grow and become more energy intensive.

The Department of Energy should establish a high-level concept development competition for the next generation deepwater architecture. Several competing

revolutionary ideas can be envisaged and proposed by consortia of industry/universities/national laboratories/and others. Conceptually, the selected consortia could then be supported in critical mass by federal government to achieve a new open system architecture standard into which all of industry can invest each with its own piece of the technology puzzle.

To overcome the physical and technological barriers and to lower the cost of producing natural gas and oil from the ultra-deepwater of the Central and Western Gulf of Mexico, the Congress should establish a public/private partnership for an Ultra Deepwater Research and Development Program within the Department of Energy.

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**Ultra-deepwater Central and Western Gulf of Mexico:
America's Challenging Energy Frontier**

The largest oil and natural gas resource ever discovered in the United States lies beneath the ultra-deepwater of the Central and Western Gulf of Mexico. The current pace of development of this resource, and ultimately its ability to contribute to U.S. energy security, is impaired by enormous cost and physical challenges. Yet, it is widely believed that a critical and intensive research and technology effort can resolve these issues and reduce costs in the deepwater Gulf of Mexico by 30 to 50 percent, enabling significant new investment and domestic production. Lowering costs, improving the efficiency and safety of new ultra-deepwater developments must be a priority of our national energy policy.

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Tripodi, Cathy

From: Kelliher, Joseph
Sent: Tuesday, July 03, 2001 8:45 PM
To: Tripodi, Cathy
Subject: FW: Ultra-deepwater Research and Development



Kelliher Deepwater
Paragraph 0...



Joe Kelliher
one-pager.doc



C. Kyle Simpson
(E-mail).vcf

-----Original Message-----

From: Kyle Simpson [mailto:kylesimpson@morganmequire.com]
Sent: Thursday, March 22, 2001 6:00 PM
To: Kelliher, Joseph
Subject: Ultra-deepwater Research and Development

Dear Joe,

I have been working with the University of Houston, Texas A&M, LSU and others to develop a program that could stimulate the development of a new architecture for oil and natural gas reserves from the ultra-deepwater of the Central and Western Gulf of Mexico.

Here are a paragraph and a one-pager on our proposed R&D program to lower costs and improve the efficiency and safety of systems for developing oil and gas resources from ultra-deepwater in the Central and Western Gulf of Mexico. I hope this program will be a part of the Administration's energy policy.

The sinking of the Petrobras platform off the coast of Brazil in nearly 5000 feet of water is a timely example of why we need to do more to improve the industry's capacity to safely work in the ultra-deepwater.

Regards,

Kyle

C. Kyle Simpson
President & CEO, Morgan Mequire, LLC
1225 I Street, NW, Suite 600
Washington, DC 20005-5960
202-661-6190 FAX: 202-661-6182

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The Department of Energy should establish a high-level concept development competition for the next generation deepwater architecture. Several competing

revolutionary ideas can be envisaged and proposed by consortia of industry/universities/national laboratories/and others. Conceptually, the selected consortia could then be supported in critical mass by federal government to achieve a new open system architecture standard into which all of industry can invest each with its own piece of the technology puzzle.

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12/18/2000

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NATIONAL ELECTRICITY AND ENVIRONMENTAL TECHNOLOGY ACT (NEET)

Preliminary Estimate of Environmental Benefits

Enactment of the National Electricity and Environmental Technology Act (NEET) would provide cost sharing for investment by the electricity generating industry for pollution control and repowering technology. It is projected that 50% of the owners of eligible units greater than 300MW would retrofit these units with a system(s) of continuous emission control to control emissions to levels of the new source performance standards for steam-electric generating units. It is projected that one-third of the operators would install flue gas desulfurization (FGD) for the control of sulfur dioxide, one-third would install selective catalytic reduction (SCR) for the control of nitrogen oxides and one-third would install both FGD and SCR. It is also projected that between 10% and 25% of the operators of units of 300MW or less would repower these units to control emissions to levels of the new source performance standards for steam-electric generating units and increase their thermal efficiency by at least 500 Btu per kilowatt hour. The completion of these installations is projected to coincide with any new or anticipated regulatory requirements for eligible units. Furthermore, it is anticipated that the availability of the tax credits will result in the installations of controls before it may have otherwise occurred.

The projected reduction in emissions from the retrofit of systems for continuous emission control and repowering are significant. Nitrogen oxide emissions are projected to be reduced by over 740,000 tons per year, a 24% reduction from 1999 levels. Sulfur dioxide emissions are projected to be reduced by over 2,457,000 tons, a 28% reduction from 1999 levels. Despite the fact that the installation of systems of continuous emission controls decreases unit efficiency and increases carbon dioxide emissions by 2%, the reduction in carbon dioxide emission from the repowering applications are projected to result in a net reduction of over 11,722,000 tons, a 0.9% reduction from 1999 levels.

Projected Emission Reductions

	NO _x	SO ₂	CO ₂
Coal-based Units > 300MW			
Emissions before NEET	1,956,545	4,941,615	860,211,290
Emissions after NEET	1,434,539	3,375,988	865,948,899
Reduction	522,006	1,565,627	-5,737,609
Coal-based Units 25 % of capacity <= 300MW repowers			
Emissions before NEET	1,099,160	3,754,884	443,357,462
Emissions after NEET	879,328	2,863,099	425,897,237
Reduction	219,832	891,785	17,460,226
Total Emission Reduction, Tons			
	741,838	2,457,412	11,722,616
Percent Emission Reduction			
	24%	28%	0.9%
Coal-based Units 10% of capacity <= 300MW repowers			
Emissions before NEET	1,099,160	3,754,884	443,357,462
Emissions after NEET	989,245	3,398,170	436,373,372
Reduction	109,916	356,714	6,984,090
Total Emission Reduction, Tons			
	631,922	1,922,341	1,246,481
Percent Emission Reduction			
	21%	22%	0.1%

OUTLINE
The National Electricity and Environmental Technology Act

Title I Accelerated technology research and development program for new and existing coal-based generation facilities

- Authorizes the Secretary, in consultation with the private sector, to establish R&D cost and performance goals that can be achieved by 2007, 2015 and 2020 by existing and new coal-based generating facilities.
- Authorizes the Secretary to study the technologies capable of achieving the performance goals and make recommendations for the programs required to develop those technologies.
- Authorizes the appropriations necessary to carry out the RD&D program to advance the technologies identified in the study as being capable of achieving the cost and performance goals.
- Authorizes the Secretary to carry out a power plant improvement initiative that will demonstrate commercial applications to new and existing plants of coal-based technologies that will advance the efficiency, environmental performance and cost competitiveness beyond that of facilities in service or demonstrated to date.
- Authorizes 50% private sector cost sharing along with the use of uncommitted Clean Coal Technology program funds to provide the federal share of the demonstration projects.

Title II Tax credits for emission reductions and efficiency improvements in existing coal-based generating facilities

- Establishes a 10% investment tax credit for investments in systems of continuous emissions controls retrofitted to existing coal-based electricity generating units.
- Establishes a production tax credit (0.34 cents/kWh) for the first 10 years of electricity output from existing coal-based generation units that are repowered with qualifying clean coal technologies.

Title III Tax credits for early commercial applications of advanced coal-based generating technologies

- Establishes a 10% investment tax credit for investment in qualifying advanced coal-based generating technologies for use in new or repowered units.
- Establishes an efficiency-based production tax credit for electricity generated during the first 10 years of operation of a new or repowered unit using qualified advanced coal-based generation technologies. In subsequent years, eligible technologies must achieve increasingly higher levels of efficiency to qualify for the credits.
- Establishes a risk pool amounting to 5% of the cost of the new technologies to help defray the cost of any modifications necessary to achieve design performance levels.

Title IV Refundable or offset credits for electric cooperatives, publicly owned electric utilities and the Tennessee Valley Authority

- Establishes refundable or offset tax credits for electric cooperatives and publicly owned electric utilities.
- Establishes an offset against payments required as an annual return on appropriations by the Tennessee Valley Authority.

OVERVIEW

The National Electricity and Environmental Technology Act

The National Academy of Engineering recently identified "Electrification – the vast networks that power the developed world" as the single most important achievement of the 20th century. The economy of the 21st century will require increased amounts of reliable, clean and affordable electricity. Coal, the nation's most abundant energy resource, can help meet these requirements if new technologies are developed and deployed to convert this resource to electricity more efficiently and cleanly.

Background

- *By the year 2020, U.S. electricity consumption is projected to grow 35% and worldwide electricity is projected to grow by 70%.*
- *Today, more than one half of U.S. electricity is generated from abundant, low-cost, domestic coal.*
- *On average, the cost of electricity from coal is less than one half the cost of electricity generated from natural gas or oil, and it is less than nuclear power.*
- *Coal constitutes more than 85 percent of U.S. fossil fuel resources, enough to last more than 250 years at current rates of consumption.*
- *Overall emissions from U.S. coal-based generating plants have been reduced by one third since 1970, even while electricity produced from coal has tripled.*

Reasons for Stimulating Advanced Coal Generating Technologies

- Uncertainty about new environmental requirements and electricity deregulation, as well as optimistic projections about natural gas prices, have led generators to rely heavily on natural gas for new electric generating capacity. Consumption of natural gas for electricity generation is projected to triple by 2020.
- Average wellhead prices for natural gas in 2000 now exceed \$9.00/mcf, well above the \$3.66/mcf price DOE forecast for 2020. Large-scale conversion to natural gas generation could double retail electric prices – a significant hardship for low and fixed income consumers. It would also eliminate an advantage the U.S. enjoys in the world marketplace.
- Only expensive retrofit technologies can achieve the more stringent emissions limits being considered for existing coal-based generating facilities. Advanced technologies for converting coal into electricity can effectively eliminate health-based pollutants and substantially improve efficiency in new power generating facilities.
- Initial commercial deployment of new coal generating technologies entails significant risk which generators are unwilling to accept in a newly competitive electricity market.

The National Electricity and Environmental Technology Act provides a measure of burden-sharing to cushion the cost of improving the environmental performance of existing coal-based generating facilities. It also stimulates deployment of advanced technologies to further reduce emissions and improve efficiency in new generating facilities, allowing our most abundant domestic energy resource to help meet the nation's growing need for clean, reliable and affordable electricity.

NATIONAL ELECTRICITY AND ENVIRONMENTAL TECHNOLOGY ACT

Congressional Briefing
January 2001

Purpose

Enact a comprehensive coal-based technology program to reduce emissions and improve efficiency in existing coal-based generating plants and stimulate deployment of advanced technologies to further reduce emissions and improve efficiency in new generating facilities

Program Elements

- ☛ **R&D program** that addresses long term technology needs to improve efficiency and reduce emissions from coal-based generation
- ☛ **Financial incentives program** designed to cushion the financial burden of applying technologies to existing coal units to improve emissions control and increase efficiency
- ☛ **Demonstration program** that provides tax incentives and/or financial assistance to deploy the initial commercial-scale applications of advanced coal-based generating technologies

Background

- ☛ DOE Fossil Energy R&D programs do not have a comprehensive program that addresses the environmental constraints and timeframes facing the existing fleet of coal-based generating units
- ☛ DOE Fossil Energy program is supporting the development of advanced coal-based generating technology, but program does not have specific performance goals or milestones for commercial application
- ☛ Vision 21 calls for the development of commercial designs after 2015
- ☛ No program exists for supporting early commercial application of high risk, higher cost advanced coal-based technology.

Major Provisions

Title I

- ☛ Accelerated Technology Research and Development Program for Advanced Clean Coal Technology for **New and Existing** Coal-based Electric Generating Facilities

Title II

- ☛ Credits For Emission Reductions And Efficiency Improvements In **Existing** Coal-based Electricity Generating Facilities

Title III

- ☛ Incentives For Early Commercial Applications Of **Advanced** Clean Coal Technologies

Title IV

- ☛ Treatment Of Certain Tax-Exempt Entities

Title I -- Accelerated R&D Program

- ☞ Part A -Establishment of a national coal-based technology development plan and applications program
 - ☞ Sec. 101 Purposes
 - ☞ Sec. 102 Cost and performance goals
 - ◆ establish cost and performance goals for technologies that are available in 2007, 2015 and after 2020
 - ◆ establish goals in consultation with industry and issue for public comment
 - ◆ after accounting for public comment, submit goals to Congress
 - ☞ Sec. 103 Study
 - ◆ identify technologies that are capable of achieving the goals
 - ◆ recommend programs to develop and demonstrate such technologies
 - ☞ Sec. 104 Technology research and development program
 - ◆ implement the R&D program identified in the study
 - ☞ Sec. 105 Authorization
 - ◆ \$100 M per year -- 2002 through 2012

Title I -- Accelerated R&D Program

☞ Part B - Power plant improvement initiative

☞ Sec. 121 Power plant improvement initiative program

- ◆ demonstrate commercial applications of advanced coal-based technologies applicable to new and existing power plants and co-production facilities
- ◆ Conduct 50MW or greater demonstrations that achieve levels of performance well beyond current or demonstrated levels for:
 - significant improvements in
 - » efficiency, or
 - » environmental performance
 - cost competitiveness

☞ Sec. 122 Financial assistance

- ◆ solicit and select 50% cost shared projects
- ◆ applicable to 25% of existing fleet of coal-based generating plants

☞ Sec. 123 Authorization

- ◆ redirect excess Clean Coal Technology program and other funding to carry out program

Title II -- Credits for Existing Units

- ☞ Sec. 201 Credit for investing in qualifying clean coal technology
 - ☐ 10% investment tax credit on 1st \$100 million investment in a qualifying system of continuous emission control installed on an existing coal-based generating unit
 - ☐ exempt from new source review
 - ☐ 10 year "safe harbor" for pollutant controlled to NSPS level
- ☞ Sec. 202 Credit for production from a qualifying clean coal technology unit
 - ☐ production tax credit of 3.4 mills/kWh during 1st 10 years of production from an existing unit, 300MW or smaller, repowered with a qualifying clean coal technology.
 - ☐ qualifying clean coal technology must reduce heat rate by not less than 500 Btu/kWh or achieve a heat rate of less than 9,000 Btu/kWh
 - ☐ exempt from new source review
 - ☐ 10 year "safe harbor" from further regulation under Clean Air Act

Title III -- Incentives For Advanced Clean-Coal Technology

- ☞ Sec. 301 Credit for investment in qualifying advanced clean coal technology
 - ☐ 10% of total investment in qualifying advanced clean coal technology with a design efficiency of not less than 36%
 - ☐ Qualifying facilities:
 - a total of 5,000MW advanced pulverized and atmospheric fluidized bed combustion
 - a total of 1,000MW pressurized fluidized bed combustion
 - a total of 2,000MW gasification combined cycle
 - a total of 2,000MW unspecified technology with 15% efficiency improvement
- ☞ Sec. 302 Production tax credit
 - ☐ 10 year variable rate based on date placed in service and design heat rate (greater efficiency required to qualify in later years)
 - ☐ Multiple demonstration periods for facilities placed in service:
 - Before 2008 with a design efficiency of 39% to 41%
 - After 2007, before 2012 with a design efficiency of 41% to 44%
 - after 2011, before 2016 with a design efficiency of 44% to 46%
 - ☐ exempt from new source review and 10 year "safe harbor" for pollutant controlled to NSPS level

Title III -- Incentives For Advanced Clean-Coal Technology (continued)

- ☞ Sec. 303 Risk pool
 - ☞ Establishes a risk pool to defray the cost of any modifications required to achieve the design performance
 - ☞ Not to exceed 5% of total investment
 - ☞ available during first three years of operation

Title IV -- Treatment of Certain Tax-Exempt Entities

- ☞ Sec 401 Credits or offsets for cooperatives and publicly owned utilities
 - ☐ Establishes refundable or offset tax credits for electric cooperatives and publicly owned electric utilities

- ☞ Sec. 402 Offsets for annual payment obligations
 - ☐ establishes an offset against payments required as an annual return on appropriations by the Tennessee Valley Authority

Environmental Benefits

- ☞ Retrofit of systems of continuous emission control that achieve the new source performance standard levels will:
 - ☐ significantly reduce NO_x and SO₂
 - ☐ increase efficiency and decrease CO₂
- ☞ repowering with technologies that achieve the new source performance standard levels and increase efficiency by 5% will:
 - ☐ significantly reduce NO_x, SO₂ and CO₂
- ☞ Total emission reduction
 - ☐ NO_x - 24%-21% (742,000 -631,922 Tons)
 - ☐ SO₂ - 28%-22% (2,457,000 -1,922,341 Tons)
 - ☐ CO₂ - 0.9%-0.1% (11,722,000 -1,246,481 Tons)

Investment and Revenue Impacts

- ☞ \$48 billion projected capital investment by owners of coal-based generating units who install systems of continuous emission control or repowering technology
 - ☐ 50% of eligible units over 300MW are projected to retrofit systems of continuous emission control
 - ☐ 10% -25% of units equal to or less than 300MW are projected to repower
- ☞ \$1.7-\$2.2 billion projected revenue impact for 1st five years
- ☞ \$3.2-\$4.5 billion projected revenue impact for 2nd five years
- ☞ Total revenue impact projected to be \$8.3-\$11.2 billion over 24 years

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Kelliher, Joseph

From: Dana Contratto [dcontratto@msn.com]
Sent: Thursday, March 22, 2001 12:04 AM
To: Kelliher, Joseph
Subject: RE: national energy policy

Importance: High

Joe,

Of course, if I were King we would already have a national energy policy that would have kept California out of the mess in which it now finds itself. Also, I was pleased to see that the Secretary is now saying that OPEC pricing is the action of a cartel and not market forces -- he is certainly on the right track.

Now, to the point of your question, what to do about pipeline certification and pricing. Frankly, I do not recall much of the gas title that was basically dropped from the 92 EPAct. I do recall that much of what the pipelines wanted was on the pricing side, and not just market pricing, but "cost of service" at such, in my view, ridiculous things as replacement pricing, which is basically "profiteering" of the worst kind because it is with the government as "regulator," and market pricing for existing systems irrespective of the pipeline's market power. Anyway, enough bemoaning that the pipelines will seek.

As to certification or licensing, the process is both mature and daunting. There seems to be little that can be done in terms of reducing intervenors rights (such as restricting intervention from competing fuels, like oil jobbers -- by the way, this notion once "had legs", but I would not pursue it for the simple reason that, while one could theoretically restrict the rights of such intervenors, the EIS process still requires the consideration of alternatives and that, perforce, brings in the alternative fuel issues anyway). There are some things around the edges that could be done, such as what FERC just proposed for California service -- that is, raising the dollar level for facilities built under blanket certificates, which helps in terms of adding compression. In short, I do think that the certificate process is seriously process constrained, but, absent suggestions that would be highly controversial, I do not see much procedurally that can be done in terms of really expediting it. (Remember the ill-fated Optional Expedited Certificate procedure -- basically saying that if the pipeline agrees to "take the economic risk" of the project, it could proceed much more rapidly. Fortunately, pipeline certificates come with rights of eminent domain and allowing such on an expedited basis is truly problematic, if not at the

certificate stage itself, then when the pipeline goes to court to condemn property and is challenged on public benefit grounds.)

So, having said that, what can be done. Here are some ideas: First, while the process itself is constrained with environmental assessments and EISs, it seems to me that the government could do something to make sure that the process is not resource constrained. In other words, my guess is that more resources at FERC for some period of time -- perhaps outside contractors so as not to commit to higher staffing for the next century -- could expedite pipeline certificates substantially. Presently, my recollection is that FERC costs the government nothing -- that is, the fees and charges generated by FERC are sufficient to cover its costs of operations. Nonetheless, the idea is that if it takes two FERC staff people two weeks to review an application, four staff people should be able to do so in less time. Granted that this increase in FERC resources might cost the surplus some few tens of millions of dollars, it probably could have a significantly beneficial impact on the time it takes to complete a certificate application review.

Second, and in a similar vein, I do not think that FERC has the power to control other agencies that are necessary to process a pipeline certificate

- for example, the Corps of Engineers for water crossings or dredge and fill permits or DOI's Fish and Wildlife for endangered species determinations. I believe that one idea floated in the past was for FERC to be the central clearing agency. The problem is, what do you do when the agencies do not comply with FERC deadlines -- it is politically unacceptable to say, well, if you do not meet the deadline, whatever you are looking into will be deemed done and acceptable. So, again, this is another kind of process constraint that in my view can also be viewed as a resource constraint -- that is, if more money could be put into the process to hire (again, perhaps contracting out is the real answer) qualified people to get the job done in a more timely manner, it could in fact be done in a more timely manner. So, again, increase the resources as necessary to move pipeline certificate applications and related requirements of other agencies in a faster manner. Do not compromise the substance, just get it done quicker with more resources.

Finally, the norm for gas transmission operating pressures in the U.S. is around 1000 psi. In other parts of the world, pipelines are operating at higher pressures -- the Bolivia-Brazil line is 1400 psi. With higher pressures, more gas moves. Obviously, some pipelines could not handle such higher pressures, but new pipelines could be built to move more gas at higher pressures. This is an idea I would take up with INGAA, also with the obvious first order being safety.

As mentioned above, rates, that is money and returns on equity, are central to incentives. To my mind, rolled in pricing is problematic from the outset unless there are truly system benefits that are fairly evenly spread in terms of better service or lower rates. Incremental pricing in my mind should, however, be the order of the day -- that is, those who use the incremental capacity created by the project or system enhancement pay for it. The good thing about this is that it quells complaints by existing customer, which can kill projects. Another interesting pricing idea is to allow market rates on new projects where there are more than one competing pipeline for the customers and where the pipeline does not possess market power -- obviously, it is quite difficult for a pipeline to possess market power when it is trying to enter a new market. The downside to this from an existing customer perspective is, how do we know that the pipeline will really be able to operate at such prices -- that is, what happens when it fails and tries to put the cost on other customers or tries to increase rates to cover its higher cost of capital for having a large failed project. Having said this, I still believe that negotiated, market rates on new projects would greatly enhance the pipelines' incentives to build new projects. The customers are usually large and sophisticated and do not need government protection from the hands of market power because the pipeline just does not have market power in these circumstances where it is trying to build new facilities to serve new customers. The key, to me, is to require the pipeline to bear the risk of failure on such projects.

So, there you have it. The best of my quick thinking at the moment recognizing that I am also on vacation in St. Lucia at the moment. I will be back next week and be able to discuss this or other items further with you if you want. By the way, as to ANGTS, I have not reviewed it for some time. However, anything done in 1976 probably should be revisited to see if it is still viable. Sorry I do not have more at this time to offer on that subject.

Good luck.

Dana

-----Original Message-----

From: Kelliher, Joseph [mailto:Joseph.Kelliher@hq.doe.gov]
Sent: Sunday, March 18, 2001 5:44 PM
To: 'Dana Contratto'
Subject: national energy policy

If you were King, or Il Duce, what would you include in a national energy

7 8-5

policy, especially with respect to natural gas issues? Should I look at any of the gas pipeline provisions in the House EPA bill that were dropped in conference? I am just looking for your immediate thoughts, please do not put a lot of time into this. I am working up the policy elements, and am less confident of my judgement on gas pipeline issues than other areas, and thought I would pick your brain. With respect to the Alaska Natural Gas Transportation Act of 1976, I am operating a suspicion that law would have to be substantially amended to serve as a basis for licensing an Alaskan gas pipeline. Do you agree?

B-5

364

6(5)

MEMO

TO: Joe Kelliher

FROM: Cathy Tripodi

DATE: 4/1/01

RE: BASIC OVERVIEW OF US REFINERY CAPACITY

1
4641

DOE008-0784

Reference Case Forecast

Table A11. Petroleum Supply and Disposition Balance
(Million Barrels per Day, Unless Otherwise Noted)

Supply and Disposition	Reference Case						Annual Growth 1999-2020 (percent)
	1996	1999	2005	2010	2015	2020	
Crude Oil							
Domestic Crude Production ¹	6.23	5.86	5.65	5.11	5.06	5.05	-0.7%
Alaska	1.11	1.07	0.79	0.64	0.70	0.64	-2.4%
Lower 48 States	5.08	4.83	4.86	4.50	4.36	4.41	-0.4%
Net Imports	8.60	8.61	10.59	11.54	11.91	12.14	1.6%
Gross Imports	6.71	6.72	10.66	11.55	11.95	12.18	1.6%
Exports	0.11	0.12	0.06	0.04	0.04	0.04	-5.3%
Other Crude Supply ²	0.04	0.31	0.00	0.00	0.00	0.00	N/A
Total Crude Supply	14.87	14.80	16.24	16.65	16.99	17.19	0.7%
Natural Gas Plant Liquids	1.71	1.85	2.14	2.35	2.63	2.89	2.1%
Other Inputs ³	0.32	0.60	0.28	0.26	0.21	0.23	-4.4%
Refinery Processing Gain ⁴	0.89	0.89	0.92	1.02	1.06	1.10	1.0%
Net Product Imports ⁵	1.15	1.30	1.56	2.34	3.33	4.37	6.0%
Gross Refined Product Imports ⁶	1.62	1.72	1.91	2.41	3.31	4.21	4.4%
Unfinished Oil Imports	0.50	0.32	0.45	0.75	0.67	0.95	5.6%
Emer Imports	0.00	0.04	0.00	0.01	0.00	0.00	N/A
Exports	0.63	0.82	0.80	0.61	0.84	0.84	0.3%
Total Primary Supply	19.01	19.44	21.15	22.64	24.21	25.75	1.4%
Refined Petroleum Products Supplied							
Motor Gasoline ⁷	6.2	6.43	9.40	10.11	10.71	11.33	1.4%
Jet Fuel ⁸	1.1	1.67	1.85	2.11	2.51	2.81	2.6%
Distillate Fuel ⁹	3.5	3.52	4.12	4.41	4.71	5.11	1.8%
Ferrous Pig Iron	0.9	0.82	0.62	0.51	0.54	0.60	-1.4%
Other ¹⁰	4.1	5.07	5.17	5.59	5.67	5.82	0.7%
Total	16.55	19.54	21.21	22.71	24.21	25.83	1.3%
Refined Petroleum Products Consumed							
Residential and Commercial	1.0	1.10	1.15	1.1	1.06	1.02	-0.4%
Industrial ¹¹	4.1	5.11	5.24	5.5	5.63	6.23	0.9%
Transportation ¹²	12.4	12.64	14.64	15.9	17.2	18.5	1.7%
Electric Generation ¹³	0.1	0.58	0.14	0.07	0.07	0.14	-7.3%
Total	16.55	19.50	21.21	22.71	24.21	25.83	1.3%
Discrepancy ¹⁴	0.01	-0.07	-0.01	-0.01	-0.01	-0.04	N/A
World Oil Price (1995 dollars per barrel) ¹⁵	17.02	17.35	20.83	21.57	21.85	22.41	1.2%
Import Share of Product Supplied ¹⁶	0.52	0.51	0.57	0.67	0.67	0.64	1.1%
Net Expenditures for Imported Crude Oil and Petroleum Products (billion 1999 dollars) ¹⁷	60.22	60.18	94.52	113.67	128.25	145.38	4.3%
Domestic Refinery Distillation Capacity ¹⁸	18.0	18.4	17.7	17.5	18.1	18.2	0.5%
Capacity Utilization Rate (percent) ¹⁹	95.0	93.0	92.1	93.1	94.0	95.0	0.1%

¹ Includes Alaska production. Excludes production of synthetic crude oil. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

² Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

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⁵ Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

⁶ Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

⁷ Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

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⁹ Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

¹⁰ Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

¹¹ Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

¹² Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

¹³ Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

¹⁴ Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

¹⁵ Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

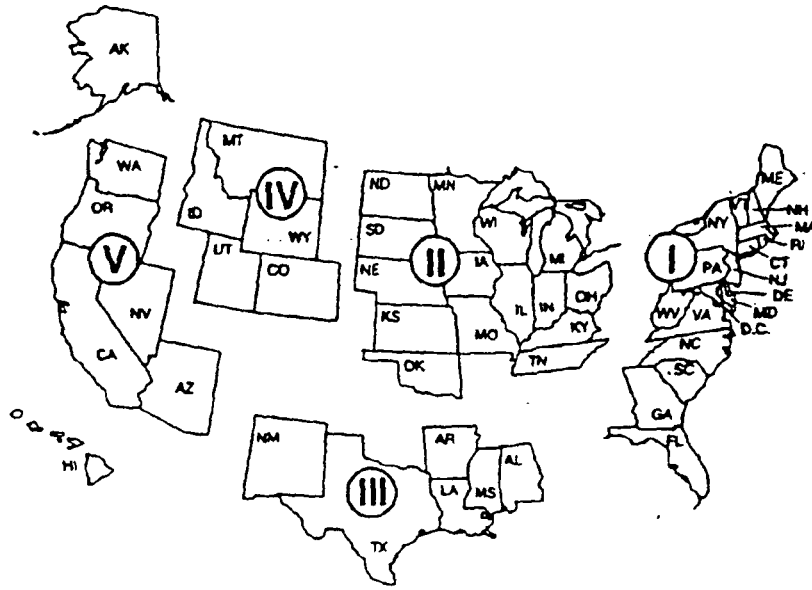
¹⁶ Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

¹⁷ Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

¹⁸ Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

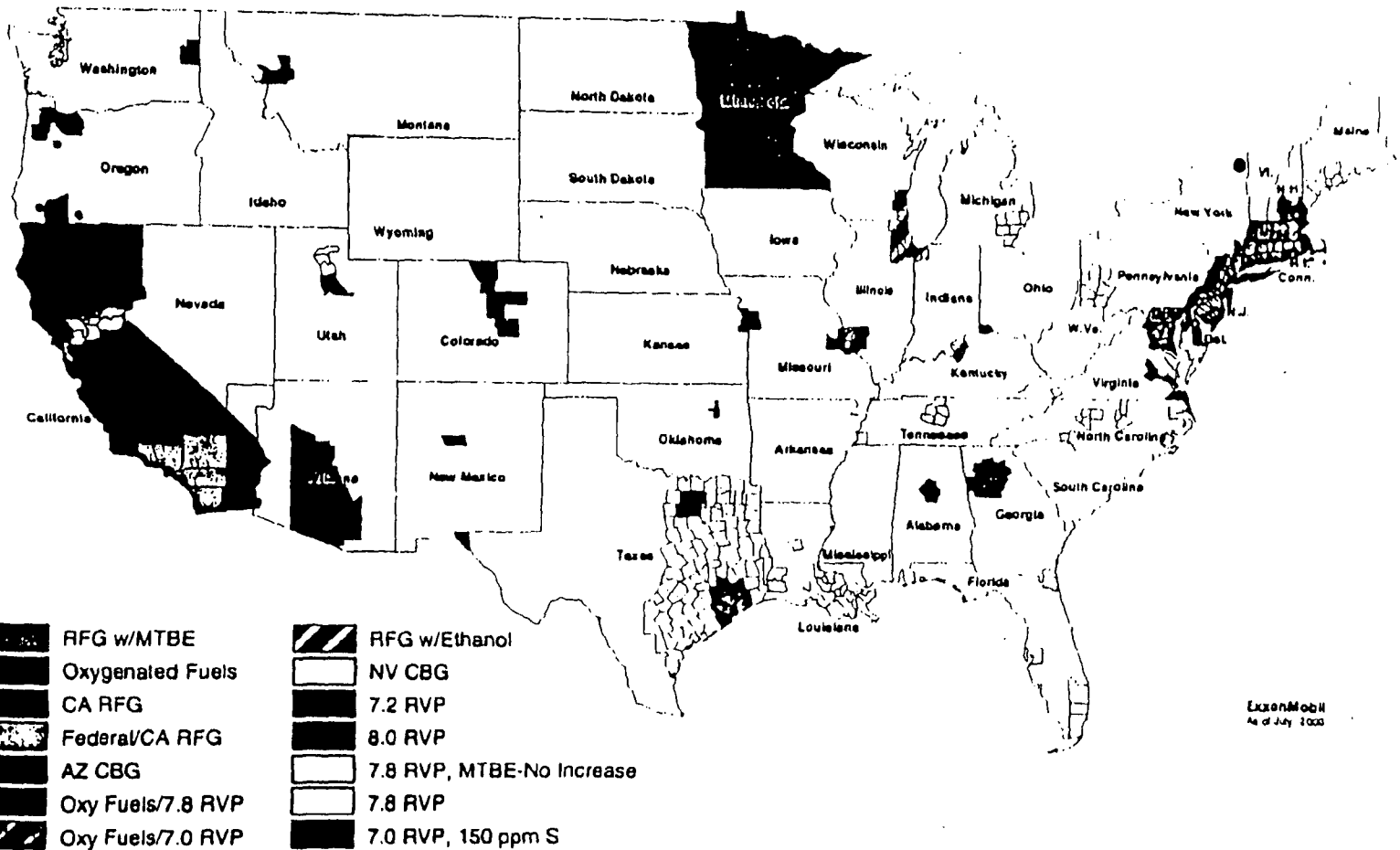
¹⁹ Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids. Includes production of other hydrocarbon liquids such as bitumen and natural gas liquids.

Figure A3. Petroleum Administration for Defense Districts



Source: Energy Information Administration, Office of Integrated Analysis and Forecasting.

U.S. Fuel Requirements



This map is not intended to be used as guidance for oxy fuels or RFG compliance, nor is it legal advice.

ExxonMobil
As of July 2000

Tripodi, Cathy

From: White, Thomas
Sent: Friday, March 30, 2001 3:08 PM
To: Tripodi, Cathy
Subject: RE: Refinery capacity

Cathy, here is more material on MTBE and ethanol.
Tom

4652

DOE008-0795

-----Original Message-----

From: Tripodi, Cathy
Sent: Friday, March 30, 2001 11:39 AM
To: White, Thomas
Subject: RE: Refinery capacity

Yikes. I do not mean to be demanding maybe they have something -- THANK YOU. is this what you refer to as boutique fuels?

-----Original Message-----

367

b5

Kelliher, Joseph

From: Anderson, Margot
Sent: Saturday, March 24, 2001 11:04 AM
To: Kelliher, Joseph
Subject: FW: NPRA Recommendations on National Energy Policy

Did I send this to you? PO guys took a look at the NPRA recommendations.

-----Original Message-----

From: Breed, William
Sent: Friday, March 23, 2001 5:05 PM
To: Anderson, Margot
Cc: McNutt, Barry
Subject: RE: NPRA Recommendations on National Energy Policy

After talking with Barry, here are some comments:

4654

DOE008-0797

William Breed
Acting Director, Office of Energy Efficiency,
Alternative Fuels, and Oil Analysis (PO-22)
202-586-4763

-----Original Message-----

From: Anderson, Margot
Sent: Friday, March 23, 2001 11:58 AM
To: Breed, William
Subject: FW: NPRA Recommendations on National Energy Policy

Bill,

Can you ask your crack staff if any of these policy recommendations from NPRA have merit?

Margot

-----Original Message-----

From: Kelliher, Joseph
Sent: Friday, March 23, 2001 9:04 AM
To: Anderson, Margot
Subject: NPRA Recommendations on National Energy Policy

-----Original Message-----

From: Slaughter, Bob [mailto:Bob.Slaughter@npradc.org]
Sent: Thursday, March 22, 2001 3:52 PM
To: Kelliher, Joseph
Cc: Anthony, Betty; Sternfels, Urvan
Subject: NPRA Recommendations on National Energy Policy

Joe Kelliher: Attached is a short document which includes NPRA's current thinking as to what changes in national energy policy are needed to help the refining sector.

I would like specifically to highlight three:

One. We believe that the Administration is missing an important opportunity to improve energy policy by not addressing the onroad diesel sulfur rule. This rule will have a greater adverse supply impact than any other in the next five years and should be reviewed. Instead of requiring essentially 100% of onroad diesel output to be reduced from 500 ppm to 15 ppm sulfur by mid-2006, at a cost of \$8 billion, the Administration could move the

William Breed
Acting Director, Office of Energy Efficiency,
Alternative Fuels, and Oil Analysis (PO-22)
202-586-4763

-----Original Message-----

From: Anderson, Margot
Sent: Friday, March 23, 2001 11:58 AM
To: Breed, William
Subject: FW: NPRA Recommendations on National Energy Policy

Bill,

Can you ask your crack staff if any of these policy recommendations from NPRA have merit?

Margot

-----Original Message-----

From: Kelliher, Joseph
Sent: Friday, March 23, 2001 9:04 AM
To: Anderson, Margot
Subject: NPRA Recommendations on National Energy Policy

-----Original Message-----

From: Slaughter, Bob (mailto:Bob_Slaughter@npradcc.org)
Sent: Thursday, March 22, 2001 3:52 PM
To: Kelliher, Joseph
Cc: Anthony, Betty; Sternfels, Urvan
Subject: NPRA Recommendations on National Energy Policy

Joe Kelliher: Attached is a short document which includes NPRA's current thinking as to what changes in national energy policy are needed to help the refining sector.

I would like specifically to highlight three:

One. We believe that the Administration is missing an important opportunity to improve energy policy by not addressing the onroad diesel sulfur rule. This rule will have a greater adverse supply impact than any other in the next five years and should be reviewed. Instead of requiring essentially 100% of onroad diesel output to be reduced from 500 ppm to 15 ppm sulfur by mid-2006, at a cost of \$8 billion, the Administration could move the

required supply date back to 2008-9 and provide a reduction in the diesel excise tax for 15ppm sulfur diesel sold in advance of the 2008 date. This could provide all the necessary supply for new trucks which need the diesel in 2006-7 (probably only 5% of demand). There are no environmental benefits from using the new diesel in old truck engines, so the program in its current form constitutes massive waste, since those trucks aren't a sufficient force in the market until 2008 at the earliest. This change will help prevent loss of diesel supply and refinery closures which will take place under the rule in its current form. The overall benefits of the program are not reduced. We would like to talk with you more on this.

Two. The EPA's enforcement campaign against U.S. refineries should be halted and reexamined. As you know, it is impossible to build new refineries, so the industry has had to add capacity at existing sites in an attempt to maintain an adequate supply of products for consumers in the past twenty years. Even at that, the industry has been able to keep U.S. capacity only flat over the past decade, so new demand has been met by increased imports of refined products. The Browner EPA launched an extensive and coordinated campaign against the industry, alleging that capacity additions during the past twenty years were not appropriately permitted. This despite the fact that refinery improvements were made with the knowledge of both state and federal environmental agencies and in keeping with permitting requirements as they were understood at that time. The EPA has sent section 114 requests, in effect blanket subpoenas, to most refiners, and many are now facing notices of violation and legal action. A few have settled because they believe that it is easier to pay a fine, sign a consent decree and move forward than resist. All this comes at a time when federal and state authorities have urged the industry to continue its herculean efforts to produce product all-out to avoid shortages. EPA's actions are really nothing more than an attempt to discredit the industry and collect tribute in the form of fines in order to allow refiners to get on with their business. We believe that everyone in the industry should obey the law, and we believe that they do, often under difficult circumstances. But this activity goes far beyond the pale of reasonable enforcement activity and should cease.

Three. The Unocal patents, recently upheld by a federal court of appeals in a decision that the Supreme Court let stand, provide no real benefit to the industry or consumers. The huge royalties granted by a California District Court-- 5.3/4 cents/gallon--are far in excess of the cost of even the reformulated gasoline program and may well cost consumers over \$200 million per year when implemented. The existence of the patents will increase the cost of gasoline, reduce supply, and eliminate all of the incentive for overcompliance with environmental regulations. The patent will also make it even harder to use ethanol in gasoline where ozone problems exist during the

summer months (e.g. Chicago and Milwaukee). The Administration should study this issue and take steps to put any royalty collections on hold. Otherwise, this situation will affect Midwestern and East Coast gasoline supplies adversely this summer, as it did last year.

The rest of our thinking is attached. Thank you for your call yesterday. I'm available to discuss these matters with you at any time.

Bob Slaughter
NPRA 202.457.0480 x 152; home!

<<natenergypol2.doc>>

489

65

Tripodi, Cathy

From: Kelliher, Joseph
Sent: Tuesday, July 03, 2001 5:15 PM
To: Tripodi, Cathy
Subject: FW: hydro licensing for principal's meeting

Predecisional: draft NEP recommendation

-----Original Message-----

From: Anderson, Margot
Sent: Wednesday, April 11, 2001 9:43 AM
To: Kelliher, Joseph; Kolevar, Kevin
Cc: Mansueti, Lawrence; Carrier, Paul
Subject: hydro licensing for principal's meeting



hydro talking points
NEP.wpd

Joe and Kevin,

Margot

411

Release

Tripodi, Cathy

From: Kelliher, Joseph
Sent: Tuesday, July 03, 2001 5:36 PM
To: Tripodi, Cathy
Subject: FW: Talking Points

Predecisional: draft NEP recommendations

-----Original Message-----

From: Anderson, Margot
Sent: Monday, April 02, 2001 6:22 PM
To: Kelliher, Joseph
Subject: Talking Points

Will this do?



Energy Efficiency
talking poin...

4835

DOE008-0978

413

(D) 13

Kelliher, Joseph

From: Vernet, Jean
Sent: Tuesday, May 01, 2001 3:12 PM
To: Kelliher, Joseph; Anderson, Margot
Cc: Conti, John; Carter, Douglas
Subject: RE: NSR

Importance: High

Joe,

Just got to look at this. I was out of the office yesterday and this morning at a conference. Please let me know your reaction, and where this stands.

4837

DOE008-0980

Jean

-----Original Message-----

From: Kelliher, Joseph
Sent: Sunday, April 29, 2001 5:05 PM
To: Vernet, Jean; Anderson, Margot
Subject: NSR

Sorry for the delay. What is your reaction to this? Looks pretty weak to me. Please advise. Thanks.

-----Original Message-----

From: Schmidt.Lorie@epamail.epa.gov%internet
(mailto:Schmidt.Lorie@epamail.epa.gov)
Sent: Tuesday, April 24, 2001 12:08 PM
To: Kelliher, Joseph
Cc: Stevenson, Beverley
Subject: NEPD Recommendations

Joe

I believe that Tom and Rob will want to talk to you about this again --
I think we are trying to set up something for Wednesday or Thursday.

I didn't catch Jean's last name, so could you please forward this to her?

Thanks.

Lorie Schmidt
364-1681

(See attached file: nsr rec 4-24.wpd)

419

65

Kelliher, Joseph

From: Michael McCabe
Sent: Monday, March 12, 2001 5:50 PM
To: Kelliher, Joseph
Cc: Haspel, Abe
Subject: RE: Appliance Standards

Abe Haspel asked that I send you the following answers to your questions on appliance standards. It reflects Mark Friedrichs input.

Michael J. McCabe
Acting Chief of Staff
Energy Efficiency and Renewable Energy
(202) 586-9155

415

(9)(6)

2001-003899

003899

Secretary, The

From: Secretary, The
Sent: Friday, February 09, 2001 6:46 PM
To: Secretary, The
Subject: Consumer Information Comment Form

FROM: Energy Task Force
NAME: Energy Task Force
SUBJECT: Energy Task Force
ZIP: 36549

PARM.1: TO:the.secretary@hq.doe.gov
SUBJECT: Consumer_Information_Comment_Form
STATE: AL
TOPIC: Other
SUBMIT: Send Comments
CONTACT: email
COUNTRY: USA

MESSAGE: Please convey my displeasure to the Energy Task Force (Cheney, etc) in there even being the slightest consideration to "waive federal environmental protection laws" to assist California in their need for new power plants. I understand that governor Gray Davis has requested the Bush/Cheney administration to consider. They have plants that can generate the power and those companies opted to NOT put in the retrofits needed to update their machinery and systems. They either run at only peak times or sold

416

2001-003452

(b)(6)

003452

Secretary, The

From:
Sent: Monday, February 05, 2001 3:15 PM
To: Secretary, The
Subject: Consumer Information Comment Form

SUBJECT: VP Energy Task Force
ZIP: 19082
CITY:
PARAM.1: TO:the.secretary@hq.doe.gov
SUBJECT:Consumer_Information_Comment_Form
STATE: PA
TOPIC: Other
SUBMIT: Send Comments
CONTACT: email
COUNTRY: US
MESSAGE: Dear Friends, My name is Rob McMonagle. I am a Ph.D. student in the Political Science Department at Temple University...and a former employee at both the RNC (1994) and for Congressman Robert F. Smith, ReL (R-OR). My dissertation topic concerns America's failed energy policy during the 1990s. I am trying to reach someone at the Vice President's Energy Task Force. Would you kindly forward me that information? In addition, are you aware of any DOE programs that can help to fund my dissertation.resear
MAILADDR

417

(5)(6)

2002-001163 1/18 A 7:52

Secretary, The

(b)(6)

From: Thursday, January 17, 2002 10:58 AM
To: the.secretary@hq.doe.gov
Subject: investigate energy task force

Dear Mr. Secretary:

001163

2002 JAN 18 A 7:52

I am writing to ask that you act to make the Bush-Cheney Energy Task Force meetings public information as required by law.

The Energy Task Force meetings were held in secret mostly with people who would benefit financially from the exploitation of our natural resources. The American people have a right to know who formulated the energy policy and what their logic was in focusing on dwindling dangerous old style technology rather than pushing for clean renewable energy sources.

Particularly in light of the Enron debacle whose officials were part of the specially selected secret participants should this information be provided to all Americans. There are at least 17 provisions in the bill which benefit Enron. The information from the meetings might provide some insight as to why these decisions were made and should be public information.

I ask for your support in making this information available to investigative committes, the GAO, and the true government of this country, the American citizen.

Sincerely,

(b)(6)

Chat with friends online, try MSN Messenger: [Click Here <http://go.msn.com/bql/hmtaq1_etl_EN.asp>](http://go.msn.com/bql/hmtaq1_etl_EN.asp)

4843

418

2001-011820 5/8 3:56

(D)

Secretary,

From:
Sent: Monday, May 07, 2001 11:06 AM
To: Secretary, The
Subject: Policy

FROM:
NAME:
SUBJECT: Policy
ZIP: 80207
CITY: Denver
PARAM.1: TO:the.secretary@hq.doe.gov
STATE: CO
TOPIC: Energy Task Force
SUBMIT: Send Comments
CONTACT: email
COUNTRY: USA
MESSAGE: Dear Reader-Could you please provide me with a list of the names and occupations of those individuals serving on the Energy Task Force with the Vice President and the Secretary of Energy. If the list exists somewhere on the internet, just provide me with the website address. Thanks very much for your help. Sincerely
MAILADDR,

4844

419

2001-011820

2001-11820

(b)(6)

Sweeney, Terrenthia

From: Friedrichs, Mark
 Sent: Thursday, June 21, 2001 4:04 PM
 To: (b)(6)
 Subject: List of members of national Energy Policy Development Group

(b)(6) Dear

In response to your e-mail of May 7, the list of the members of National Energy Policy Development Group is contained in the forward to the National Energy Policy Report issued on May 16. This forward is attached. The full report can be accessed through either the White House (www.whitehouse.gov) or the Department of Energy (www.energy.gov) websites.

I hope this information is helpful, although I suspect it comes too late.



Mark D. Friedrichs (PO-2)
 Policy Office
 U.S. Department of Energy
 Washington, D.C. 20585
 202-586-0124
 Fax: 202-586-3047

420

2001-020617



Department of Energy
Washington, DC 20585

(D) (C)

October 25, 2001

(b) (7)

Dear

I am responding to your letter to President Bush which commented on several aspects of the Administration's National Energy Policy released in May. You can obtain more information by visiting the White House website at: www.whitehouse.gov/energy.

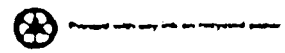
Let me assure you the National Energy Policy is being implemented in a manner that will assure accountability. By Federal law, performance objectives are established for all major programs implemented by the Department of Energy and other Federal agencies, and progress toward achievement of these objectives is regularly tracked and reported.

Your recommendations concerning expanded use of nuclear energy and release of information on development of the National Energy Policy have been conveyed to key decision makers within the Department.

Thank you for writing.

Regards,

Vicky A. Bailey
Assistant Secretary
Office of Policy and International Affairs



4846

DOE008-0989

421
2001-020617 9/6/01 9:35

WH (2001-020617)

THE WHITE HOUSE
WASHINGTON

020617

2001 SEP -6 A 9:35

TO: DOE

DATE: 8-27-01

We are forwarding the enclosed constituent mail because your agency is best suited to reply. President Bush would like all Federal agencies to respond to constituent mail in 30 days. Please return a copy of your agency response and the original incoming correspondence to me at the White House at the following address:

Mail Analysis
Room 58
Eisenhower Executive Office Building
Washington, D.C. 20502

If you have questions about these procedures or need to provide updated contact information, you may reach me at (202) 456-5490; fax at (202) 456-9050; or by email at Gertrude A. Roddick@who.eop.gov

President Bush appreciates your cooperation and assistance.

Sincerely,

Trudy Roddick
Director
Mail Analysis

4847

DOE008-0990

422
BOB
8.21.01
DOE

(b) (6)

August 8, 2001

George W. Bush, President
The White House
Washington, DC 20500

Mr. President:

Thanks for the national energy policy "Overview". Although the content appears to be very comprehensive with a broad stroke approach and some detail in graphic form it falls short of accountability to be held to budgeted dollars and time.

Six of the seven notable recommendations lack definitive timetables and the one that does, on clean coal technology and co-fired biomass credits fails to separate the 'clean coal' dollars from the 'biomass credit' dollars. Results as measured to a productive program's timetable is the only way to extract full value from the \$2 billion.

Nearly fifty years ago over-fire-air-jets dramatically improved both coal fired efficiency and the reduction of emissions. With 'fluid fuels': pulverized coal and high pressure steam injected, even great efficiencies have been achieved. And, conversion is relatively simple.

While we have made remarkable progress in nuclear powered sub and surface craft technology we refuse to follow the reuse of nuclear fuels as practiced by France and Japan. As a stop-gap measure to bring flexibility into the electrical energy facet of our crisis coastal regions could be served by nuclear powered systems built into barges to be placed where the need is to cover an emergency or a growth demand situation. And, any new nuclear power plants would be required to adopt the proven 'reuse' technology.

Now then, get that 'saddle burr' removed which has drawn blood. Vice President Cheney should release the names of the people called upon to formulate the energy policy. He is a decent man. That is likely one of the reasons you selected him. He should be allowed / required to perform all of the people's business in 'the sunshine'. Just do it. That is all the more compelling now that you are about to appoint a Texas oil man to the F.E.R.C. Them Stetsons cast long dark shadows.

Sincerely,



(b) (6)

PS: Please push on that investigation of steel imports. If domestic steel production continues to be reduced, in time, this nation will face an economic crisis far greater than the energy crisis. And, like the energy crisis, we will have contributed to it because we have allowed it to happen. O.P.E.C ?? How about S.P.E.C.??

4848

DOE008-0991

423

b5

Kelliher, Joseph

From: Kripowicz, Robert
Sent: Wednesday, March 28, 2001 9:55 AM
To: Kelliher, Joseph
Subject: RE: oil pipelines

The industry is of two minds on this, but the Association of Oil Pipelines (Ben Cooper, phone 202-408-7970) is doing a study of the problems and attempting to get a consensus on what the industry position is. I understand that they are meeting on this report on April 16th. I am trying to get more information, but you might want to call Ben directly. He was formerly on the Senate Energy Committee staff.

---Original Message---

From: Kelliher, Joseph
Sent: Tuesday, March 27, 2001 2:32 PM
To: Kripowicz, Robert; Anderson, Ariene
Subject: oil pipelines
Importance: High

4849

DOE008-0992

424

(b)(5)

Kelliher, Joseph

From: Faulkner, Doug
Sent: Monday, April 30, 2001 1:26 PM
To: Kelliher, Joseph
Subject: RE: SEP

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, April 30, 2001 9:29 AM
To: Faulkner, Doug
Subject: RE: SEP

-----Original Message-----

From: Faulkner, Doug
Sent: Monday, April 30, 2001 8:49 AM
To: Kelliher, Joseph
Subject: RE: SEP

on this and the previous message from you: can i share with the program to discuss? when do you need answers? have a couple of other questions, so maybe we should talk for couple minutes?

-----Original Message-----

From: Kelliher, Joseph
Sent: Sunday, April 29, 2001 3:48 PM
To: Faulkner, Doug
Subject: SEP

425

(b)(5)

Kelliher, Joseph

From: Faulkner, Doug
Sent: Tuesday, April 17, 2001 9:11 AM
To: Kelliher, Joseph; Hutto, Chase
Subject: RE: reliability/superconductivity r&d funding

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, April 16, 2001 8:36 PM
To: Faulkner, Doug; Hutto, Chase
Subject: reliability/superconductivity r&d funding

426

(b)(5)

Kelliher, Joseph

From: Anderson, Margot
Sent: Sunday, February 25, 2001 12:50 PM
To: Kelliher, Joseph
Subject: RE: regional reality check

-----Original Message-----

From: Kelliher, Joseph
Sent: Sunday, February 25, 2001 12:43 PM
To: Anderson, Margot
Subject: RE: regional reality check

-----Original Message-----

From: Anderson, Margot
Sent: Sunday, February 25, 2001 12:25 PM
To: Kelliher, Joseph
Subject: regional reality check

Joe.

Margot << File: secreg.doc >>

4852

DOE008-0995

427

(b)(5)

Kelliher, Joseph

From: Anderson, Margot
Sent: Thursday, February 22, 2001 6:01 PM
To: Kelliher, Joseph
Subject: RE: propane

Don't every say that in Iowa:

Propane is used on 660,000 farms for irrigation pumps, grain dryers, standby generators and other farm equipment. It is an essential fuel for crop drying, flame cultivation, fruit ripening, space and water heating and food refrigeration. More than 14 million families, many in rural areas not served by natural gas infrastructures, use propane to fuel their furnaces, water heaters, air conditioners, outdoor grills, fire places, dryers and range tops.

-----Original Message-----

From: Kelliher, Joseph
Sent: Thursday, February 22, 2001 5:52 PM
To: Anderson, Margot
Subject: propane

428

3-5

Kelliher, Joseph

From: Phillip Tseng
Sent: Thursday, April 05, 2001 3:22 PM
To: Kelliher, Joseph
Cc: Haspel, Abe; Zimmerman, MaryBeth
Subject: Section 1602 of EPACK92

Joe:

Phillip

429

B-5

Kelliher, Joseph

From: Burdette, Michael
Sent: Tuesday, April 24, 2001 5:44 PM
To: VAGTS, KEN; O'Donovan, Kevin
Cc: Kelliher, Joseph; "Karen_Y._Knutson@ovp.eop.gov" <SMTP:Karen_Y._Knutson@ovp.eop.gov> at DOEHQ%hq; COOK, JOHN
Subject: RE: fact check

Please feel free to contact me if you have any questions.

-----Original Message-----

From: Vagts, Ken
Sent: Tuesday, April 24, 2001 2:33 PM
To: Burdette, Michael
Subject: FW: fact check

As discussed.

-----Original Message-----

From: O'Donovan, Kevin
Sent: Tuesday, April 24, 2001 1:26 PM
To: Vagts, Ken
Subject: FW: fact check

Can you have someone fact check this and respond to Joe Kelliher?
Thanks!

-----Original Message-----

From: Joseph Kelliher at HQ-EXCH at X400PO
Sent: Tuesday, April 24, 2001 12:33 PM
To: O'Donovan, Kevin
Subject: fact check

Kevin, can you confirm this and get back to me and Karen? Thanks.

-----Original Message-----

From: Karen_Y._Knutson@ovp.eop.gov:internet
[mailto:Karen_Y._Knutson@ovp.eop.gov]
Sent: Tuesday, April 24, 2001 10:26 AM
To: Kelliher, Joseph
Subject: can you ask some to verify this for me?

430

3-5

Kelliher, Joseph

From: Angulo, Veronica
Sent: Tuesday, April 24, 2001 5:07 PM
To: 'Charles_M_Smith@ovp.eop.gov'
Cc: Kelliher, Joseph; 'Karen_Y_Knutson@ovp.eop.gov'
Subject: Comments on Chapter 10

Dear Charles,

I sent Karen Knutson and Matt Macmanus comments on Chapter 10 yesterday. I know that Margot Anderson is gathering comments from here at DOE, but I had wanted to give Karen and Matt a heads up on mine. Do you have a deadline on receiving comments? (I am helping Margot gather IA's comments here at DOE since we are the only ones other than Policy here likely to have any comments).

I am attaching the text of my email to Karen below.

Please feel free to call me if you have any questions or comments.

Karen,

Please let me know if you have any questions or comments.

With best regards,

Veronica Angulo

4856

DOE008-0999

431

B-5

Kelliher, Joseph

From: Angulo, Veronica
Sent: Monday, April 23, 2001 4:55 PM
To: 'Karen_Y_Knutson@ovp.eop.gov%internet'
Cc: Kelliher, Joseph; Hudome, Randa; McMonigle, Joe; 'Robert_C_Mcnally@opd.eop.gov';
'William_W_McIlhenny@nsc.eop.gov'
Subject: Comments on International Chapter

Karen,

Please let me know if you have any questions or comments.

With best regards,

Veronica Angulo

432

B-5

Kelliher, Joseph

From: Carrier, Paul
Sent: Tuesday, May 08, 2001 2:38 PM
To: Anderson, Margot; Kelliher, Joseph
Subject: RE: FERC hydro projects

Importance: High

Joe.

Paul

-----Original Message-----

From: Anderson, Margot
Sent: Tuesday, May 08, 2001 9:03 AM
To: Kelliher, Joseph; Carrier, Paul
Subject: RE: FERC hydro projects

Paul,

Can you clarify for Joe?

Margot

-----Original Message-----

From: Kelliher, Joseph
Sent: Tuesday, May 08, 2001 8:55 AM
To: Carrier, Paul
Cc: Anderson, Margot
Subject: FERC hydro projects

437

010194

2001-010194 4/16 A 11:42

(b)(6)

Spencer Abraham, Member Cheney's
Interagency Energy-Policy Task Force
1000 Independence Ave, SW
Washington, D.C. 20585

I'm confident that you, Secretary Abraham, as one of the seven members of the Cheney's Interagency energy-policy task force, agree that nuclear power should account for a higher percentage of U.S. electricity than the current level of 20%. However, Leader Cheney has acknowledged that the task force hasn't figured out what to do with the nuclear waste. The attached document presenting the production-proven PURE process provides that answer.

Eleven years ago Admiral James D. Watkins, President George H. Bush's Secretary of Energy, also acknowledged this nuclear waste problem; he did something about it. With his in-depth knowledge of and hands-on nuclear power experience, Admiral Watkins acted decisively in 1990 and ordered an immediate thorough evaluation of the PURE-process alternative to the troubled Yucca Mountain Repository Project.

John W. Bartlett, Director of DOE's Office of Civilian Radioactive Waste Management, was charged with carrying out Admiral Watkin's orders for a prompt evaluation of the PURE alternative. Within three months Director Bartlett's ten-man Ad Hoc team reported back that the PURE process was technically feasible and economically attractive and should be studied in-depth by DOE's Washington-based research department.

Shortly thereafter the Clinton Administration took office; further evaluation of the PURE alternative to the Yucca Mountain Repository Project got lost within the bureaucratic maze.

You, as a member of Cheney's seven-person energy Task Force are in an enviable position to capitalize on Admiral Watkin's 1990 vision; you can be instrumental in implementing this production-proven PURE process alternative which resolves the nuclear waste issue.

Respectfully yours,

(b)(6)

4859

DOE008-1002

444

Release

THE YUCCA MOUNTAIN REPOSITORY IS A NUCLEAR BOON-DOGGLE

CREATING, NOT RESOLVING, PROBLEMS FOR NUCLEAR ENERGY

(b)(6) April 11, 2001

"I'm a strategy builder, I love strategies and I believe a strategy is critical", declared retired Admiral James D. Watkins in responding to his appointment in January 1989 by President George H. Bush to be Secretary of Energy. It was a typical approach for this can-do, full-steam-ahead submariner from Hyman Rickover's rigorous nuclear navy. Watkins brought a strong support and knowledge of nuclear power to compliment President George H. Bush's knowledge in-depth of the oil and gas issues

Upon completing his first year as Energy Secretary in shaping a "national energy strategy" that would give President George H. Bush some policy options in the future, Admiral Watkins had discovered that being a strategy builder has its limits especially when dealing with conflicting missions and the pressures of national politics.

In discussions with John Sununu, President Bush's Chief-of-Staff, Admiral Watkins became aware of a process alternative to the Yucca Mountain project, called PURE - Plutonium Recovery and Recycle, that removes one hundred percent of the plutonium from the spent fuels; this essentially zero-cost recovered plutonium could replace the expensive uranium-235 as the fuel for nuclear power reactors.

Admiral Watkins noted a major advantage to the PURE process over the Yucca Mountain Project in that with the plutonium removed, the remaining radiosotopes in the spent fuels would decay to trace levels within five hundred years. These residual wastes could be safely stored in titanium cylinders for that five hundred-year period of time thereby greatly reducing the long-term demands for a waste repository. He ordered an immediate thorough evaluation of this PURE alternative.

John W. Bartlett, Director of DOE's Office of Civilian Radioactive Waste Management, was charged with carrying out Admiral Watkin's orders for this prompt and thorough evaluation of the PURE alternative. Director Bartlett immediately formalized a ten-man evaluation task-force; a few months later they reported back that the PURE process was technically feasible and should be studied in-depth by DOE's Washington-based research department.

Shortly thereafter, the Clinton Administration took office. Hazel O'Leary, who had no experience or knowledge of nuclear

4860

energy, was appointed Secretary of Energy. Further evaluation of the PURE alternative to the Yucca Mountain Repository Project got lost within DOE's bureaucratic maze.

These then are the plutonium and nuclear waste problems left by the previous administration that are facing Vice President Cheney's interagency task force as they evaluate nuclear energy options for meeting the Nation's energy needs.

PLUTONIUM PROLIFERATION - WORLDWIDE

Every nation or group that has access to a nuclear reactor, whatever its type, has a readily available inventory of plutonium. For terrorist or rogue nations, the readily available spent fuel being discharged annually from power reactors is an easy way to accumulate plutonium for bomb purposes.

Contrary to today's politically motivated consensus, recovery of this plutonium can be readily implemented by a conventional process requiring only commercially available equipment. It can be implemented by any group having a basic knowledge of chemistry. They do not need the hazardous, multi-cycle reprocessing facilities currently employed by the developed countries. Instead, by holding these spent fuels for five years following reactor discharge, natural radiation decay reduces the radiation level by one thousand-fold. Plutonium can then be recovered by a simple, well-known, one-step, anionic resin extraction process.

Today in the United States, the "politically correct" burial method for disposing of power reactor plutonium is a sham. In January 1999, the Government Accounting Office, GAO, issued a report, GAO/OCG-00-6 stating:

DOE has spent \$6.5 billion over 15 years for a permanent disposal site for highly radioactive waste at Yucca Mountain, Nevada. This project is currently 12 years behind schedule, and DOE has not yet determined whether the site is suitable for a repository.

Regardless of the problems with the Yucca Mountain Project, any rogue group, using the Yucca Mountain example, can justify accumulating plutonium in its spent fuel form. Easy recovery of the plutonium can be anytime five years following spent fuel discharge from the reactor. That would not require constructing a complex repository; the fuel could even be held in the reactor storage basin for the five years cooling that facilitates plutonium recovery.

DEFINING THE PROBLEM

Over fifty years ago our country's political, scientific and engineering leaders coalesced around the Manhattan Project in an all out team effort to produce the world's first atomic bomb. In their view our national security was at stake. Within three years following President Roosevelt establishing the Project team, kilogram quantities of plutonium were being produced.

Plutonium production started out fifty years ago as a closely guarded military program with a limited objective. The world's attention is now focused on controlling so-called "weapons-type" plutonium as exemplified by the Test Ban Treaty negotiations.

Today, plutonium produced in light water power reactors is being falsely defined as separate and distinct from weapons-type plutonium produced in graphite moderated reactors. The truth is that bombs have been constructed and successfully tested using plutonium produced in light water power reactors. Our national leaders are either unaware of, or choose to ignore, that by far the greatest risk to our national security is the plutonium being produced in the 436 licensed nuclear power reactors operating in the world today.

The most recent example of our blindness to this threat is our financing of two light water moderated reactors for North Korea in exchange for their promise to shut down their existing graphite moderated reactor.

The facts are that the bomb quality of the plutonium produced in any type reactor is directly related to the total exposure time of the fuel in the reactor. In today's power reactors that residence time is normally about four years and yields a product containing 80 percent of the fissionable form of plutonium. Shorten the fuel cycle time and the fissionable quality of the plutonium will be improved proportionately. The only known way to eliminate plutonium by peaceful means is to convert it into useful energy. As the leader of the world, it is imperative that the United States show the way in this critical mission.

It is disturbing today to find proposals being advanced to extend and even double the forty year service life of existing power reactors. Such actions fly in the face of common sense. You cannot inspect in safety; you can only build it in at time of construction. Ocean freighters, airplanes, trucks and railroad locomotive respect this fundamental truth. They are routinely retired at the end of their design life to be replaced by safer, more efficient equipment. Common sense would seem to dictate that the well-known catastrophic consequences of a reactor failure, such as Chernobyl, would dictate at least equal caution in dealing with nuclear reactors.

RESOLVING THE PROBLEM

As a basic part of a plutonium elimination program, existing reactor and fuel designs will have to be replaced. New plutonium-consuming, power producing reactors, specifically designed for efficiently destroying plutonium can and must be built.

Such design philosophy is in marked contrast to existing reactor and fuel designs where fission fuel efficiency is the dominant theme. Critics will abound. What type of reasoning can possibly justify such a total departure from today's nuclear concepts? There are four primary facts that mandate a full and complete review of this proposal. They are:

1. The world-wide accumulation of plutonium by any group, including rogue Nations and terrorist groups, that has access to nuclear power reactors.
2. The ease with which plutonium can be recovered from the spent fuels discharged annually from these reactors.
3. The well recognized capability of producing bomb quality plutonium in each and every one of the 436 licensed nuclear power reactors operating in the world today.
4. With essentially complete recovery of the 24,300 year half-life plutonium, the remaining radioactivity in the spent fuels decays to trace levels within five hundred years. Containment in titanium capsules for that period of time would resolve the long-term nuclear waste disposal problem.

The dedicated team effort of the Manhattan Project's political, scientific and engineering leaders fifty years ago created plutonium. In the ensuing years, political and nuclear energy corporate leaders have usurped control and allowed plutonium production to get out-of-control. Based on their legislated decisions, the politicians appear to lack even a basic understanding of the consequences of their actions. At the same time the nuclear energy corporate leaders studiously avoid any responsibility for disposing of the spent fuels with their contained plutonium. They lobby intensely and at length to keep that as a government responsibility.

Today, an equally dedicated project team similar to the Manhattan Project of fifty years ago is needed to first, clearly identify this out-of-control threat posed by power reactor produced plutonium and second, formulate an integrated effort to eliminate it. Outstanding scientists, engineers and environmentalists, free of both internal corporate influence and political pressures, are required to bring this about.

What is needed to "put the show on the road" is a leader who can maintain complete separation of the corporate and governmental executives with their vested interests and the scientific-engineering-environmental personnel who are required to implement the program.

The author's credentials that qualify him to speak on this issue include three major plutonium patents and one fail-safe nuclear reactor patent. He has had eight years of on-site experience and served as the Head of the Redox Hanford Plant Ruthenium Emissions Task Force, HW-32465, and chairman of the Hanford Seven-Year Waste Management Program, HW-58329. Other nuclear related activities include serving as an expert witness in Congressional Hearings, serving as an expert witness for Nebraska Public Power in its successful lawsuit against General Electric, and being a consultant to the California Energy Commission in formulating its nuclear legislation.

(b)(6)

2001-010085 4/12/01 3:40

April 8, 2001

The Honorable Spencer Abraham
Secretary
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Secretary Abraham,

During your interview last Sunday on This Week, you confirmed that cutting funding for energy efficiency and renewable energy programs by as much as 30 percent is being considered. I assume that this is happening, at least in part, in an Energy Task Force headed by Vice President Cheney. My concern, based on your further remarks, is that you and this task force are not receiving the information necessary to make well-informed decisions, "We're going to look at these programs which have been widely scorned and criticized of not having returned a very good investment for the taxpayers..." I know of program examples that deserve scorn and criticism however; I also know of programs that have demonstrated great present and potential future value. My concern is that the only group being heard is a group that has *only* scorn and criticism.

Your goal is appropriate (U.S. Chamber of Commerce, National Energy Summit), "...to make sure that America's energy needs of the next 20 years are met; that we succeed in—in confronting that challenge." You also indicated the need for a diverse energy supply policy; "It will be founded on the understanding that diversity of supply means security of supply ... and that a broad mix of supply options - from coal to windmills, nuclear to natural gas - will help protect consumers against price spikes and supply disruptions." This timeframe is also appropriate for further development of diverse energy supplies. I have direct experience with photovoltaic programs that have been highly successful. Photovoltaic power generation has unique benefits including supplying clean power at the point of use during times of peak demand. Photovoltaic power generation is in its infancy relative to all other energy options. Even so, photovoltaic technology has demonstrated successes for present energy generation and, more importantly, demonstrated development successes indicating that photovoltaic technology will continue to meet DOE near-term and long-term (20 year) goals.

I request your support in all possible ways to insure well-informed decisions regarding our energy future. The photovoltaic option is one of multiple renewable energy technologies that deserve to be considered in the broad mix of energy supply options.

Best regards,

4865

DOE008-1008

446

65

Kelliher, Joseph

From: Carter, Douglas
Sent: Tuesday, May 01, 2001 11:23 AM
To: Kelliher, Joseph
Cc: Rudins, George; Kripowicz, Robert; Anderson, Margot; Braitsch, Jay
Subject: RE: clean coal

Joe -

Doug

-----Original Message-----

From: Kelliher, Joseph
Sent: Tuesday, May 01, 2001 10:37 AM
To: Carter, Douglas; Anderson, Margot
Cc: Rudins, George; Kripowicz, Robert
Subject: RE: clean coal

-----Original Message-----

From: Carter, Douglas
Sent: Tuesday, May 01, 2001 10:35 AM
To: Anderson, Margot; Kelliher, Joseph
Cc: Rudins, George; Kripowicz, Robert
Subject: RE: clean coal

B-5

If this doesn't work, please email or call me at x69684.

Doug

-----Original Message-----

From: Anderson, Margot
Sent: Tuesday, May 01, 2001 8:28 AM
To: Carter, Douglas
Subject: FW: clean coal

Doug,

Can you fill this in for Joe Kelliher?

B-6

441

65

Kelliher, Joseph

From: Carter, Douglas
Sent: Tuesday, May 01, 2001 10:35 AM
To: Anderson, Margot; Kelliher, Joseph
Cc: Rudins, George; Kripowicz, Robert
Subject: RE: clean coal

If this doesn't work, please email or call me at x69684.

Doug

-----Original Message-----

From: Anderson, Margot
Sent: Tuesday, May 01, 2001 8:28 AM
To: Carter, Douglas
Subject: FW: clean coal

Doug,

Can you fill this in for Joe Kelliher?

margot

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, April 30, 2001 6:49 PM
To: Anderson, Margot
Subject: RE: clean coal

-----Original Message-----

From: Anderson, Margot
Sent: Monday, April 30, 2001 6:19 PM
To: Kelliher, Joseph; Kripowicz, Robert
Cc: Carter, Douglas; DeHoratius, Guido
Subject: RE: Clean coal

Joe,

Is this beyond what we already sent them (from FE) a few hours ago? If so, we should ask Doug Carter and/or Guido DeHoratius to answer (I note that Bob K. is out today). By when?

Margot

448

b5

Kelliher, Joseph

From: Charles_M._Smith@ovp.eop.gov%internet [Charles_M._Smith@ovp.eop.gov]
Sent: Tuesday, May 01, 2001 12:25 PM
To: Kelliher, Joseph
Subject: One more item

Joe:

Charlie

4868

DOE008-1011

449

b5

Kelliher, Joseph

From: Charles_M._Smith@ovp.eop.gov%internet [Charles_M._Smith@ovp.eop.gov]
Sent: Monday, April 30, 2001 10:29 PM
To: Kelliher, Joseph; Anderson, Margot; William_bettenberg@ios.doi.gov%internet;
Tom_fulton@ios.doi.gov%internet
Cc: Kjersten_drager@ovp.eop.gov%internet; Andrew_D._Lundquist@ovp.eop.gov%internet;
Karen_Y._Knutson@ovp.eop.gov%internet
Subject: Chapter 7 requirements

Charlie

4869

DOE008-1012

450

(initials)

2001-016387 7/9 P 12:47

Secretary, The

From: Mackall, Brenda
Sent: Monday, May 14, 2001 3:23 PM
To: Secretary, The
Subject: FW: In Response to Your Inquiry: Solar Energy R&D

016387

2001 JUL -9 P 12:47

-----Original Message-----

From: Burrow, Richard
Sent: Monday, May 14, 2001 2:04 PM
To:
Subject: In Response to Your Inquiry: Solar Energy R&D

(initials)

Thank you for sharing your views on alternative energy technologies and on solar energy in particular. As you may already know, Vice-President Cheney is leading an influential energy task force in a review our national energy policy. Their report is due out later this week and will address energy production and environmental issues.

I would like to point out that the Department of Energy has extensive research and development programs in new or alternative energy technologies, including solar, wind and photovoltaic energy technologies. These programs are conducted at our national labs and in joint programs with industry. I've attached a copy of our most recent Energy R&D Portfolio Report, which summarizes what is being done in our energy R&D programs, why the investment is necessary, and what outcomes are expected. This and other DOE mission area R&D portfolio reports may be downloaded from <http://www.osti.gov/portfolio/>. The report profiles the R&D being undertaken by the Department of Energy to address energy production, distribution and utilization. I hope you find it interesting.



Energyfinal.pdf

I have forwarded your e-mail message to the Office of the Executive Secretariat for reassignment to the appropriate office within the Department of Energy for a more comprehensive response to your solar energy questions. Someone will contact you separately to follow-up on your concerns.

Sincerely,

Richard Burrow
Deputy Director
Secretary of Energy Advisory Board

(initials)

From: Burrow, Richard
Sent: Thursday, May 10, 2001 3:32 PM
To: Burrow, Richard
Subject: The Current Energy Crisis
Message Flag: Follow up
Due By: Monday, May 14, 2001 5:00 PM
Flag Status: Flagged

4870

451

b
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May 10, 2001

Executive Director Vacant
1000 Independence Ave SW
Washington, DC 20585

Dear Executive Director:

I want to write/correspond with all persons I can that may be able to affect & effect change in the current energy crisis that is hitting our country and in all eventualty, the world. Today, we rely on coal, natural gas, nuclear power, wind and fossil fuels to power this great nation of ours. Over the last several months, we, your constituency and residents of the US, and planet Earth, have been peppered with the realities of a supply that WILL become exhausted and the ramifications of supply & demand in an hostile environment. Coal, Natural Gas, Fossil Fuels WILL become exhausted, maybe NOT in our lifetime, or our children's', or maybe even our children's children, but it WILL become exhausted. Not to mention the pollutants and hazardous by-products these different energy sources spew into our air & water—other natural resources that we truly CANNOT live without. And it puzzled me that over these months, I have not seen in print or heard via the various media sources the words: SOLAR ENERGY. Why is that? I know that the sun, for all practical purposes, is an inexhaustible supply of energy (unless you or anyone else living today plans to still be here in another couple of billion years), always reliable and FREE. If Jimmy Carter had been allowed to pursue and enact his solar energy agenda over 24 years ago, I wonder where we would be today from an energy supply, cost and clean air/clean water standpoint??!! Not to mention the advances we would have enjoyed in the technology of harnessing the suns energy and the beneficial by-products & peripherals of same. Where do you think we would be if we had this opportunity?

I'm not completely naive. I understand the power and hold BIG OIL & BIG AUTO has on our nations elected officials, and how much we as a country, worship the almighty dollar, but Sir: at what point is the cost too great and the benefits too little?? I look into my daughters face, and I see a face of hope and endless, boundless optimism, happiness and creativity. But I wonder aloud today, what future does my country & planet hold for her? When will the realities of what we have &/or haven't planned for her, slap that face and change everything? Do YOU want that responsibility? Or wouldn't it be to EVERYONE'S ADVANTAGE to look at EVERY alternative, regardless of the lobbyist and money poured into campaigns, and do what's best for our nation; what's right for our planet?

If anything, may I get some answers from you on these questions that I can relay to my daughter and future generations. I would be much obliged.

Thanks very much for your time & consideration.

Sincerely,

454

(b)(3)

2001-016607 7/11 A 10:57

Secretary, The

From: _____
Sent: Thursday, April 19, 2001 2:03 PM
To: Secretary, The
Subject: Select

FROM: 016607 2001 JUL 11 A 10:57

NAME:
SUBJECT: Select
ZIP: 55438
CITY: Bloomington
PARM.1: TO:the.secretary@hq.doe.gov
STATE: MN
TOPIC: Energy Task Force
SUBMIT: Send Comments
CONTACT: email
COUNTRY: USA

MESSAGE: Our company has modified Brazilian and Barbados sugar cane technology, used to produce low-cost ethanol vehicle fuel and cogenerate electricity, for a crop that can be grown in the U.S. farm belt called sweet sorghum. Bush's energy task force should advocate: 1) a requirement that all farm belt states deregulate their electricity and gas markets, and 2) the phase-out of MTBE to ethanol. Farm belt utilities are blocking are entrance into the market. In addition, an expansion in the use of ethanol w
MAILADDR:

4872

454

f>

DARRELL BESCHEN

02/15/2001 05:32 PM

To: Sam Baldwin
cc: MaryBeth Zimmerman/EE/DOE@DOE

Subject: Re: Transportation expanded section

Sam....you are the target audience for chapter 5 in the material prepared by transportation attached below.....

----- Forwarded by Darrell Beschen/EE/DOE on 02/15/2001 05:30 PM -----

David Rodgers 02/15/2001 05:29 PM

To: MaryBeth Zimmerman/EE/DOE@DOE, Tom Gross, richard.moore@hq.doe.gov, John Ferrell, James Eberhard/EE/DOE@DOE, Gerson Santos-Leon/EE/DOE@DOE, Tien Nguyen/EE/DOE@DOE, Ed Wall,

cc: Darrell Beschen/EE/DOE@DOE, Michael York/EE/DOE@DOE

Subject: Re: Transportation expanded section

Dear MaryBeth,

Thanks to a lot of writing/editing by Ed Wall, Gerson, and Tien, we now have an expanded section for transportation. The attached document is already on the P: drive and contains inserts for various chapters, chapter 4 sections on transportation and alternative fuels and chapter 5 section on biofuels.



OTT NEP expanded :

Ed Wall will be out on Friday, 2/16, so please call me with questions at 6-8038 or 301-602-3482.

Thanks, David Rodgers

MaryBeth Zimmerman



MaryBeth Zimmerman

02/14/2001 03:38 PM

To: David Rodgers/EE/DOE@DOE
cc: Darrell Beschen/EE/DOE@DOE, Michael York/EE/DOE@DOE

Subject: Re: FW: NEP Draft outline

4877

David Rodgers 02/14/2001 02:59 PM

David Rodgers 02/14/2001 02:59 PM

To: MaryBeth Zimmerman/EE/DOE@DOE
cc:

Subject: Re: FW: NEP Draft outline 

Dear Marybeth,

David

4878

DOE008-1021


455



MaryBeth Zimmerman

02/22/2001 06:50 PM

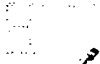
To: William Parks/EE/DOE@DOE, Linda Silverman/EE/DOE@DOE, Lawrence Mansueti/EE/DOE@DOE, Ed
Wall/EE/DOE@DOE, Philip Patterson/EE/DOE@DOE, Tien Nguyen/EE/DOE@DOE,
rmcguckin@energetics.com @ DOE, Douglas Kaemp/EE/DOE@DOE
cc: Tom Gross/EE/DOE@DOE, Robert Dixon/EE/DOE@DOE
Subject Redraft of Renewables 5 pager

Please make your suggested changes as red-line and e-mail back to Darrell, Mike York, and me.
Please forward this to others in your office who work on this specific technologies, but please do not

circulate drafts outside of EERE. Thanks. Chapter 7 end of dav 22

4879

DOE008-1022

456



James Rannels
04/27/2001 02:54 PM

To: kknutson@ovp.eop.gov
cc: Robert Dixon, William Parks
Subject: Solar Energy Synopsis

As per your request, attached is a synopsis of solar energy.



Solar Energy Syn

4880

DOE008-1023

450

65

Kelliher, Joseph

From: COOK, JOHN
Sent: Friday, March 30, 2001 6:58 PM
To: Tripodi, Cathy
Cc: Kelliher, Joseph; SHORE, JOANNE; O'Donovan, Kevin
Subject: RE: Refinery capacity

Cathy,

We can help you w/ some of this, but in order to clarify your needs, can we get together briefly on Tuesday, say 3:30. I'm in 2G-051, or we can meet in your office.

John

-----Original Message-----

From: Cathy Tripodi_at_HQ-EXCH at X400PO
Sent: Friday, March 30, 2001 9:47 AM
To: Cook, John
Cc: Joseph Kelliher_at_HQ-EXCH at X400PO
Subject: Refinery capacity

Dear John, Hello, my name is Cathy Tripodi and I am new with the administration and am trying to do some research for Joe Kelliher. I was

4883

DOE008-1026

Please let me know if you can help me compile these types of specify refinery capacity questions and any other insight you might have would be greatly appreciated. Thank you, Cathy Tripodi #62003.

40

B-5

Kelliher, Joseph

From: Cook, Trevor
Sent: Tuesday, May 22, 2001 3:04 PM
To: Kelliher, Joseph
Subject: RE: reprocessing paper

Importance: High

Trevor
3-7046

-----Original Message-----

From: Kelliher, Joseph
Sent: Tuesday, May 22, 2001 1:50 PM
To: Cook, Trevor
Cc: Magwood, William
Subject: RE: reprocessing paper
Importance: High

-----Original Message-----

From: Cook, Trevor
Sent: Tuesday, May 22, 2001 9:21 AM
To: Kelliher, Joseph
Cc: Magwood, William
Subject: reprocessing paper
Importance: High

Joe,

Here is the paper, its just over a page.

Trevor

<< File: ONE PAGER ON REPROCESSING.doc >>

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, May 21, 2001 3:15 PM
To: Magwood, William; Cook, Trevor
Subject: hearing prep: reprocessing

460



Joseph Kelliher@HQMAIL on 02/20/2001 07:22:46 PM

To: MaryBeth Zimmerman/EE/DOE@DOE@HQMAIL
cc: Abe Haspel/EE/DOE@DOE@HQMAIL, John Sullivan/EE/DOE@DOE@HQMAIL, Margot
Anderson@HQMAIL

Subject: RE: NEP drafts

-----Original Message-----
From: MaryBeth Zimmerman
Sent: Tuesday, February 20, 2001 6:33 PM
To: Kelliher, Joseph
Cc: Anderson, Margot; Haspel, Abe; Sullivan, John
Subject: NEP drafts

4886

DOE008-1029

Of course, please let us know if you need anything further.

Thanks.

Mary Beth Zimmerman
6-7249

<< File: Chapter 4 -- efficiency mbzsf.doc >>

461



MaryBeth Zimmerman

02/20/2001 06:33 PM

To: Joseph Kelliher@HQMAIL @ HQDOE
cc: Margot Anderson@HQMAIL @ HQDOE, Abe Haspel/EE/DOE@DOE, John Sullivan/EE/DOE@DOE

Subject: NEP drafts

I have a couple of brief follow-up questions/items related to the energy plan:

Of course, please let us know if you need anything further.

Thanks,

Mary Beth Zimmerman
6-7249



Chapter 4 – efficiency r

4888

DOE008-1031

464

E-5

Kelliher, Joseph

From: Anderson, Margot
Sent: Monday, March 12, 2001 11:07 AM
To: Kelliher, Joseph
Cc: Fygi, Eric; Haspel, Abe; Friedrichs, Mark
Subject: RE: Appliance Standards

Joe.

-----Original Message-----

From: Kelliher, Joseph
Sent: Saturday, March 10, 2001 5:50 PM
To: Fygi, Eric; Haspel, Abe; Anderson, Margot
Subject: Appliance Standards

467

3-5

Kelliher, Joseph

From: Anderson, Margot
Sent: Thursday, March 22, 2001 6:06 PM
To: Conti, John; Haspel, Abe; Zimmerman, MaryBeth; Lockwood, Andrea; Breed, William; KYDES, ANDY; Whatley, Michael; Carter, Douglas; Braitsch, Jay; Melchert, Elena; Cook, Trevor; Breed, William; 'jkstier@bpa.gov'; York, Michael; Freitas, Christopher; Friedrichs, Mark; Pumphrey, David; Kolevar, Kevin
Cc: Kelliher, Joseph
Subject: NEP Update, Thursday 3/22

Thank you all very much!
Margot

40-

B-5

Kelliher, Joseph

From: Anderson, Margot
Sent: Thursday, March 22, 2001 3:06 PM
To: Kelliher, Joseph
Subject: FW: DOI help

Joe,

In response to your DOI question.

Margot

-----Original Message-----

From: William_Bettenberg@ios.doi.gov&internet
(mailto:William_Bettenberg@ios.doi.gov)
Sent: Thursday, March 22, 2001 3:04 PM
To: Anderson, Margot
Subject: Re: help

"Anderson, Margot"

<Margot.Anderson@ios.doi.gov>
Bettenberg/PPA/OS/DOI@DOI

To: William

4893

q.doe.gov>

cc:

Subject: help

03/21/2001 04:14

PM

Bill,

Margot

P-5

4/6/01

Williams, Ronald L

From: Joel Rubin
Sent: Friday, February 16, 2001 3:05 PM
To: Anderson, Margot
Subject: Chapter 2 Re-send

Importance: High



Chapter 2_Energy
Impacts_2.16... Margot

My apologies for this... please use this attached version (entitled "Chapter 2_energy impacts_2.16.01"). There were a few minor edits that were added at the last minute to this version.

Thank you,

Joel

4895

468

Williams, Ronald L

From: Porter, Robert
Sent: Friday, February 16, 2001 3:20 PM
To: Kripowicz, Robert; Anderson, Margot
Cc: DeHoratius, Guido; Scalingi, Paula; Freitas, Christopher
Subject: RE: NEP Section 6 Infrastructure

Margot -

Bob Porter



Nuclear Fuel -
Infrastructure ...

-----Original Message-----

From: Kripowicz, Robert
Sent: Friday, February 16, 2001 3:09 PM
To: Anderson, Margot
Cc: Porter, Robert; DeHoratius, Guido; Scalingi, Paula; Freitas, Christopher
Subject: FW: NEP Section 6 Infrastructure

Attached is the infrastructure piece.

-----Original Message-----

From: Freitas, Christopher
Sent: Friday, February 16, 2001 2:39 PM
To: Kripowicz, Robert
Cc: DeHoratius, Guido; Porter, Robert; Scalingi, Paula
Subject: NEP Section 6 Infrastructure

Bob, FYI see attached which is due to Margot Anderson by 3:00 today.

<< File: Section F infrastructure.doc >>

Sincerely,

Christopher J. Freitas
Program Manager, Natural Gas Infrastructure
(202) 586-1657

473

65

Kelliher, Joseph

From: Anderson, Margot
Sent: Saturday, March 24, 2001 10:34 AM
To: Kelliher, Joseph
Subject: RE: refinery action

No, just finished editing 8 and inserting graphics (no guidance from program offices on placement). I edited with a view toward what are options are going to be - but this consistency check will take more work after we have the options list.

-----Original Message-----

From: Kelliher, Joseph
Sent: Saturday, March 24, 2001 10:29 AM
To: Anderson, Margot
Subject: refinery action

471

B-5

Kelliher, Joseph

From: Anderson, Margot
Sent: Saturday, March 24, 2001 9:35 AM
To: Kelliher, Joseph
Subject: RE: question

-----Original Message-----

From: Kelliher, Joseph
Sent: Saturday, March 24, 2001 9:27 AM
To: Anderson, Margot
Subject: question

4904

DOE008-1047

474

Williams, Ronald L

From: Carter, Douglas
Sent: Friday, February 16, 2001 3:23 PM
To: Anderson, Margot
Cc: Kripowicz, Robert; Porter, Robert; Rudins, George; DeHoratiis, Guido; Shages, John; Cook, Trevor; Baldwin, Sam
Subject: NEP Section 5

Margot -

Attached are 4 files for Section 5 of the NEP.

SECTION 5b.doc is the bulk of the product and represents material from FE.
NEP Chap 5 renewables...doc is the renewables material.
NE input to doug.doc is the material from NE
Section 5 Figs.ppt is a Powerpoint file with 2 graphics for insertion into the text (At end of "Overview" for Electricity subsection)

Please call if you have questions or instructions.



NEP Chap 5 renewables
2001-2-1..



SECTION 5b.doc



NE input to doug.doc



Section 5 Figs.ppt

Doug Carter (FE-26)
US DOE
Washington, DC 20585
202-586-9684

4905

DOE008-1048

7/6

Tripodi, Cathy

From: Kelliher, Joseph
Sent: Tuesday, July 03, 2001 8:24 PM
To: Tripodi, Cathy
Subject: FW: Statement on Energy Policy/Implementation

Importance: High



NEP Statement.doc

-----Original Message-----

From: Jim Ford [mailto:Fordj@api.org]
Sent: Tuesday, March 20, 2001 2:06 PM
To: Kelliher, Joseph
Subject: Statement on Energy Policy/Implementation
Importance: High

As we discussed, please find attached a short paper on the U.S. oil and natural gas supply situation, together with a list of steps that the Administration could take at once to alleviate the situation. I will send you additional materials under separate cover.

Jim Ford
Federal Relations Director
American Petroleum Institute
682-6210
fordj@api.org <mailto:fordj@api.org>

Overview: U.S. Oil and Natural Gas Supply Situation

Energy has not been an overriding government priority for some time. The energy problems of the past year have showcased the price we are having to pay for the failure to develop an effective national energy policy. Time is not on our side. U.S. energy concerns must have a place at the decision-making table and the energy impact of government decisions must be carefully weighed.

Crude Oil

The Department of Energy has forecast U.S. energy consumption between 1999 and 2020. While natural gas rises from 23 percent of consumption in 1999 to 28 percent in 2020, oil stays about the same (40 percent in 1999 and 39 percent in 2020). Seventy percent of petroleum consumed in the U.S. is for transportation. Most recent energy studies agree that this share is likely to continue well into this century – even with strong increases in energy efficiency and a rapid infusion of new technology.

However, under the best of circumstances, the U.S. will become more and more dependent on oil imports. This dependency now amounts to about 57 percent of U.S. oil demand. DOE projects that 64 percent of oil demand will be met by imports in 2020. In order 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 increase both. The U.S. oil and natural gas industry has the advanced technology needed to find and produce oil and gas in an environmentally safe manner.

However, domestically, access to federal government lands has become an acute problem. For example, from 1983 to 1997, access to federal lands in eight Western states declined by more than 60 percent – and that does not reflect major land withdrawals since 1997. At the same time, the U.S. oil and gas industry's ability to compete for opportunities abroad have been threatened by two U.S. policies: the alarming tendency to use unilateral economic sanctions against oil producing countries as an instrument of foreign policy -- despite the evidence that they don't work -- and the adverse tax treatment of foreign source income of U.S. oil and gas companies.

-- Refinery Capacity and Utilization. Even if we obtain all the oil we need, our energy supply would still be under an enormous strain. While environmental requirements now in place are giving us the most environmentally-sensitive fuels ever manufactured, these requirements have drastically reduced refinery flexibility and further tightened the U.S. supply situation.

The U.S. refinery system is basically maxed out. Capacity utilization averaged 92.6 percent in 2000. At peak levels of seasonal demand, it topped 95 percent. This compares to an average capacity utilization rate in other industries of 82 percent. Refinery capacity utilization is high because our capacity is below what it was 20 years ago. Recent increases have not kept up with the growth in demand – so we've had to import products. But we cannot import much more, because tightening fuel specifications and the proliferation of so-called boutique fuels make it much more difficult for foreign producers to meet the U.S. demand for refined products.

-- Regulatory Burden. Increased regulation of fuels and refineries is a major reason why refinery capacity has not kept up with demand. We haven't built a major new refinery in this country in 20 years. Moreover, complex, time-consuming permitting requirements greatly limit the ability of refiners to increase capacity. They also inhibit efforts to increase pipeline capacity. The pipeline system in the U.S. was designed decades ago to handle some 70 percent of liquid fuel transportation, but the increased demand and proliferation of fuels is making this system increasingly inadequate.

-- Boutique Fuels. The Clean Air Act Amendments require state implementation plans (SIPs) under which individual metropolitan areas can create their own fuels to meet clean air requirements. There are 15 different types of gasoline now in use because of clean air requirements. This balkanization of fuels greatly reduces refinery flexibility. The reduced flexibility means that relatively minor disruptions and down-time for maintenance can have a much more disruptive impact on the flow of supply.

Natural Gas

Natural gas is a clean, safe, efficient and reliable fuel. Consequently, demand is rising, particularly as the fuel of choice for new power plants. Approximately 85 percent of the natural gas consumed in the U.S. is produced domestically. Most of the remainder comes from Canada. The landmark natural gas study issued a year ago by the National Petroleum Council – a DOE advisory committee – projected that producers would have to invest about \$658 billion between 1999 and 2015 to meet the growth in gas demand.

The growing demand for natural gas underscores the urgent need for increased access to potentially gas-rich government lands. However, most government lands with the best prospects for new gas discoveries are off limits to development: 100 percent of resources offshore on both coasts; 56 percent of the eastern Gulf of Mexico resources; and 40 percent of the Rocky Mountain region resources.

Needed: A National Energy Policy

What is needed from government decision-makers is a serious effort to address U.S. energy problems and shape a fair and effective national energy policy. That is why API welcomes the energy policy initiatives now underway in both Congress and the Administration. However, it took some 25 years to get into today's energy situation – and the problems will not be solved overnight. So it is extremely important that energy be fully represented at the government decision-making table and that the energy impact of environmental and other decisions be fully considered.

After more than two decades of inaction, the American public can no longer afford the luxury of not coming to grips with U.S. energy needs, while maintaining a clean environment. The nation can do both. Meeting U.S. energy needs and protecting the environment are both critical to our nation's continued economic growth – and to achieving the future prosperity and well-being we all seek.

Available Administrative Actions on National Energy Policy in the Oil and Natural Gas Sectors:

Require Executive Branch agencies to avoid significant adverse energy consequences in proposing regulatory and other administrative actions.

Require Executive Branch agencies to review existing rules and policies and revise them as necessary to eliminate significant adverse energy consequences.

Make energy policy a key assignment for a senior White House aide.

Direct the Interior Department, in consultation with other federal land management agencies and the Energy Department, to complete the inventory of federal oil and natural gas resources mandated by the 2000 amendments to the Energy Policy and Conservation Act.

Direct the Energy Department, in consultation with the federal public land management agencies, to identify administrative barriers to timely exploration and development of federal oil and gas resources and take steps to remove those barriers.

Provide a "strike force" to complement existing staff of public land management agencies to immediately reduce the tremendous backlog of pending applications for permits to develop federal oil and gas leases, to revise resource management plans, and to complete required environmental analyses. Ultimately, provide adequate staffing/resources to maintain and expedited timetable for these activities.

Direct the Interior Department to expand royalty-in-kind (RIK) programs onshore and offshore, with any RIK oil to be transferred into the Strategic Petroleum Reserve.

Maintain the December 2001 schedule for OCS Lease Sale 181.

Grant California's request to the Environmental Protection Agency for a waiver from the Clean Air Act's oxygen mandate for reformulated gasoline.

Ensure that the first annual report from the advisory group to EPA on technological feasibility (equipment and construction resources) of the on-road diesel sulfur rule includes meaningful conclusions and recommendations that the agency can use quickly to decide whether modifications should be made to avoid adverse fuel supply and price consequences.

Direct the Labor Department, in consultation with the Energy Department, to develop recommendations for a job-training program designed to fill employment needs in the oil and natural gas industry.

Direct the Office of Management and Budget to determine whether fiscal 2001 funds could be reprogrammed to increase grants to states for low-income heating and weatherization assistance.

Direct OMB to determine whether funds could be reprogrammed to ensure full funding of U.S. Coast Guard nautical charting programs and Corps of Engineers harbor maintenance activities to ensure that tankers can move needed petroleum products safely and expeditiously.

477

Tripodi, Cathy

From: Kelliher, Joseph
Sent: Tuesday, July 03, 2001 8:32 PM
To: Tripodi, Cathy
Subject: FW: Nuclear power plant safety

Importance: High



Nuclear plant
safety.doc



PPT Slide- Steady
Improvements ...

-----Original Message-----

From: KANE, John [mailto:jek@nei.org]
Sent: Tuesday, May 01, 2001 10:31 AM
To: Kelliher, Joseph
Subject: Nuclear power plant safety
Importance: High

Joe:

Following up on our conversation this morning, I am forwarding a paragraph on nuclear safety and a good graphic representing the dramatic increases in safety margins the industry has been able to produce over the last decade.

Certainly we have much more detailed information if you need it, but this is pretty crisp and concise and would likely fit for the energy report.

Please call me if I can be of any further help.

John

4931

DOE008-1074

Nuclear power plant safety

In 2000, the nuclear power industry had a record year for safety and electricity production. In fact, there has been a steady improvement in nuclear power plant safety for several years, as demonstrated both by NRC and industry plant performance indicators. This outstanding safety record has set the stage for the NRC's transition to a new nuclear power plant oversight process. This process will focus attention on those areas of the plant most important to ensuring safety, as indicated by a regular NRC inspection program based on 19 plant performance indicators.

Throughout the 1990s, capacity factors for nuclear power plants increased from 65 percent to 90 percent as a result of improved operating practices and maintenance, training and reduced plant outage time. Safety performance—measured in several areas by the Nuclear Regulatory Commission—has improved in parallel with this economic performance. For example, 18 “unusual events” at nuclear power plants were reported to the NRC by the industry in 2000, an all-time low (see attached chart). Improved safety is due to better industry management of the plants and to a new NRC nuclear plant oversight process that focuses on those areas of the plant most important to safety. At one time, critics of nuclear power argued that reactor operators would be pressured to cut corners on safety in pursuit of greater economic return. The industry's record, however, has proven that safety and operational excellence go hand-in-hand.

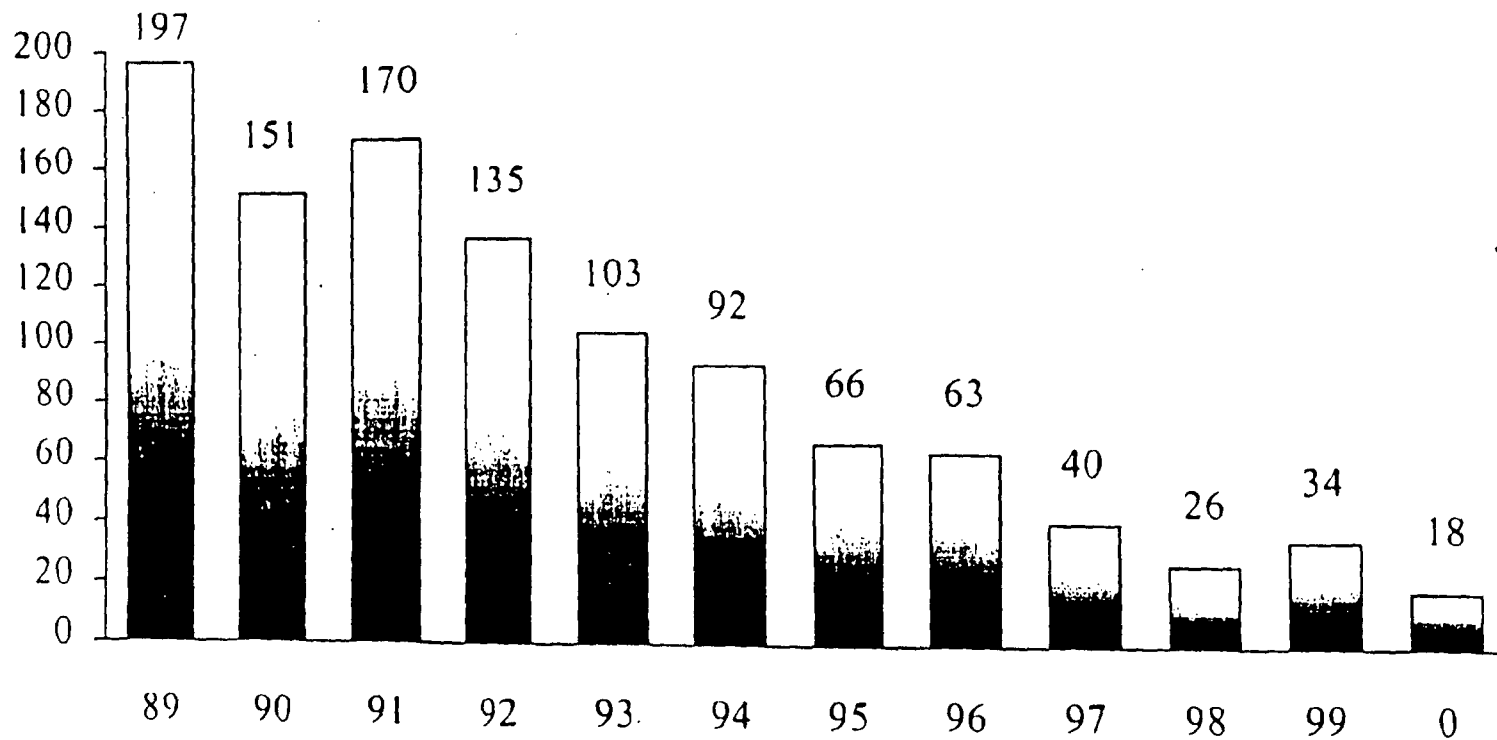
Nuclear plants are designed according to a “defense in depth” philosophy that requires redundant, diverse, safety systems. Two or more safety systems perform key functions independently so that even if one fails, there is always another to back it up, providing continuous protection.

Physical barriers safely contain radiation and provide emergency protection if needed. First, the fuel pellets are sealed inside rods made of special metal designed to contain fission products. Next, the fuel rod assemblies are contained within a large, thick steel reactor vessel. Lastly, the reactor vessel and extensive safety and steam generation equipment are enclosed, in turn, in a massive, reinforced steel and concrete structure, the “containment,” whose walls are three to four feet thick. The containment ensures that the Chernobyl accident of 1986 a substantial radiation leak could not occur in the United States.

The nuclear energy industry maintains a comprehensive system of training and qualification for all key positions at nuclear power plants. Workers involved in operations, maintenance, and other technical areas undergo continuous training and assessment. For example, reactor operators spend every fifth week in training—a more rigorous schedule than the airline industry. Each plant training program must renew its accreditation every four years. In addition, the NRC routinely monitors plant training programs.

Steady Improvement in Safety

(Number of Unusual Events Reported to NRC)



470

65

Kelliher, Joseph

From: Anderson, Margot
Sent: Sunday, March 25, 2001 1:43 PM
To: 'Poche, Michelle'; Kelliher, Joseph
Cc: 'Symons.Jeremy(a)EPA.gov'
Subject: RE: DOT Comments

B-5

Michelle,

Margot

Margot

---Original Message---

From: Poche, Michelle [mailto:Michelle.Poche@ost.dot.gov]
Sent: Saturday, March 24, 2001 4:18 PM
To: Kelliher, Joseph
Cc: Anderson, Margot; 'Symons.Jeremy(a)EPA.gov'
Subject: DOT Comments

Joe and Margot,

Here are some comments from DOT policy staff on your chapters. Since our systems don't always talk to each other, I'll paste them below into this email as well as attaching a document. Please let me know if you have questions, and I'll run them down with the folks who have offered these suggestions.

Jeremy, Joe and Maroot.

Thanks,
Michelle

Chapter 3

Page 1

Chapter 6

<< File: DOT comments.doc >>

4937

DOE008-1080

477

B5

Kelliher, Joseph

From: Anderson, Margot
Sent: Sunday, March 25, 2001 1:29 PM
To: 'Poche, Michelle'; Kelliher, Joseph
Cc: 'Symons, Jeremy(a)EPA.gov'
Subject: RE: DOT Comments

Michelle,

Margot

-----Original Message-----

From: Poche, Michelle [mailto:Michelle.Poche@ost.dot.gov]
Sent: Saturday, March 24, 2001 4:18 PM
To: Kelliher, Joseph
Cc: Anderson, Margot; 'Symons, Jeremy(a)EPA.gov'
Subject: DOT Comments

Joe and Margot,

Here are some comments from DOT policy staff on your chapters. Since our systems don't always talk to each other, I'll paste them below into this email as well as attaching a document. Please let me know if you have questions, and I'll run them down with the folks who have offered these suggestions.

Jeremy, Joe and Margot.

Michelle

Chapter 3

Chapter 6

Rewrite of Transportation Section, Page 4

4938

DOE008-1081

<< File: DOT comments.doc >>

482

b5

Kelliher, Joseph

From: Anderson, Margot
Sent: Sunday, March 25, 2001 1:15 PM
To: 'Poche, Michelle'
Cc: Kelliher, Joseph
Subject: RE: DOE comments/edits

Michelle.

— margot

-----Original Message-----

From: Poche, Michelle [mailto:Michelle.Poche@ost.dot.gov]
Sent: Saturday, March 24, 2001 2:49 PM
To: Anderson, Margot
Subject: RE: DOE comments/edits

Margot,

4942

DOE008-1085

--Michelle

-----Original Message-----

From: Anderson, Margot [mailto:Margot.Anderson@hq.doe.gov]
Sent: Saturday, March 24, 2001 8:59 AM
To: 'Michelle.Poche@OST.DOT.Gov&internet'
Cc: Charles Smith (E-mail); Kelliher, Joseph
Subject: RE: DOE comments/edits

Michelle,

Here's a nice graphic to use in chapter 9 on pipelines. We'll be sending more to you Monday. Hope our edits you received from Charlie were useful.

Margot

-----Original Message-----

From: Charles_M_Smith@ovp.eop.gov&internet
[mailto:Charles_M_Smith@ovp.eop.gov]
Sent: Friday, March 23, 2001 8:27 AM
To: Michelle.Poche@OST.DOT.Gov&internet
Cc: Andrew_D_Lundquist@ovp.eop.gov&internet;
Karen_Y_Knutson@ovp.eop.gov&internet
Subject: DOE ccmments/edits

Michelle:

Some suggested comments/edits on your chapter from DOE.

(See attached file: energyinfrastructure2.doc)

481

B-5

Kelliher, Joseph

From: Anderson, Margot
Sent: Monday, March 26, 2001 2:30 PM
To: Kelliher, Joseph
Subject: FW: NEP

More useful comments on your list.

-----Original Message-----

From: Paik, Inja
Sent: Monday, March 26, 2001 1:17 PM
To: Anderson, Margot; Friedrichs, Mark
Cc: Marlay, Robert
Subject: NEP

Morgo/Mark:

The following are my comments on NEP policy issues.

Inja

482

B. - 5

Kelliher, Joseph

From: Anderson, Margot
Sent: Monday, March 26, 2001 2:00 PM
To: Kelliher, Joseph
Subject: FW: quick comments on list of policies

Comments from one of PO's office directors alerting you on some controversial items on the list.

-----Original Message-----

From: Breed, William
Sent: Monday, March 26, 2001 1:29 PM
To: Anderson, Margot
Subject: quick comments on list of policies

Margot: here are some notes on what may be controversial and what may be missing from this mornings handout -- Bill

4945

DOE008-1088

497

B.S

Kelliher, Joseph

From: Anderson, Margot
Sent: Monday, March 26, 2001 12:14 PM
To: Kelliher, Joseph
Subject: FW: Comments on NEP Goals & Actions

Importance: High

From Paul Carrier. Might be helpful.

-----Original Message-----

From: Carrier, Paul
Sent: Monday, March 26, 2001 12:02 PM
To: Friedrichs, Mark; Anderson, Margot
Cc: Conti, John
Subject: Comments on NEP Goals & Actions
Importance: High

4947

DOE008-1090

487

B.S.

Kelliher, Joseph

From: Anderson, Margot
Sent: Monday, April 02, 2001 1:48 PM
To: Kelliher, Joseph
Subject: RE: energy efficiency one-pager

Joe,

Margot

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, April 02, 2001 12:19 PM
To: Anderson, Margot
Subject: RE: energy efficiency one-pager

-----Original Message-----

From: Anderson, Margot
Sent: Monday, April 02, 2001 10:51 AM
To: Kelliher, Joseph; 'Symons.Jeremy@epamail.epa.gov'
Cc: Kolevar, Kevin
Subject: RE: energy efficiency one-pager

Joe.

How do you want to proceed on this? Have you drafted a revised?

Margot

-----Original Message-----

From: Kelliher, Joseph
Sent: Friday, March 30, 2001 6:48 PM
To: Anderson, Margot; 'Symons.Jeremy@epamail.epa.gov'
Cc: Kolevar, Kevin
Subject: RE: energy efficiency one-pager

-----Original Message-----

From: Anderson, Margot
Sent: Friday, March 30, 2001 5:40 PM
To: "Symons.Jeremy@epamail.epa.gov"
Cc: Kelliher, Joseph; Kolevar, Kevin
Subject: energy efficiency one-pager

<< File: energy efficiency one-pager.wpd >>

Reviewed/edited by EE, PO. Joe and/or Kevin. Problems?

Jeremy, can you let me know if you get this? I am having problems with your e-mail.

Margot

485

B-S

Kelliher, Joseph

From: Anderson, Margot
Sent: Monday, April 02, 2001 10:51 AM
To: Kelliher, Joseph; 'Symons.Jeremy@epamail.epa.gov'
Cc: Kolevar, Kevin
Subject: RE: energy efficiency one-pager

Joe,

How do you want to proceed on this? Have you drafted a revised?

Margot

-----Original Message-----

From: Kelliher, Joseph
Sent: Friday, March 30, 2001 6:48 PM
To: Anderson, Margot; 'Symons.Jeremy@epamail.epa.gov'
Cc: Kolevar, Kevin
Subject: RE: energy efficiency one-pager

-----Original Message-----

From: Anderson, Margot
Sent: Friday, March 30, 2001 5:40 PM
To: 'Symons.Jeremy@epamail.epa.gov'
Cc: Kelliher, Joseph; Kolevar, Kevin
Subject: energy efficiency one-pager

<< File: energy efficiency one-pager.wpd >>

Reviewed/edited by EE, PO, Joe and/or Kevin, Problems?

Jeremy, can you let me know if you get this? I am having problems with your e-mail.

Margot

480

B-5

Kelliher, Joseph

From: Anderson, Margot
Sent: Wednesday, April 04, 2001 1:47 PM
To: Kelliher, Joseph
Subject: RE: energy efficiency

-----Original Message-----

From: Kelliher, Joseph
Sent: Wednesday, April 04, 2001 12:35 PM
To: Anderson, Margot
Subject: energy efficiency

4951

DOE008-1094

487

B-5

Kelliher, Joseph

From: Anderson, Margot
Sent: Tuesday, April 03, 2001 5:47 PM
To: Kripowicz, Robert; Kolevar, Kevin
Cc: Kelliher, Joseph; Braitsch, Jay
Subject: RE: Integrating GHG Reduction into the NEP

Bob

Margot

-----Original Message-----

From: Kripowicz, Robert
Sent: Tuesday, April 03, 2001 5:33 PM
To: Kolevar, Kevin
Cc: Anderson, Margot; Kelliher, Joseph; Braitsch, Jay
Subject: FW: Integrating GHG Reduction into the NEP
Importance: High

Kevin – Based on previous e-mails I offer the following:

4952

DOE008-1095

40 'Cook, Trevor

From: Cook, Trevor
Sent: Monday, May 07, 2001 3:26 PM
To: Anderson, Margot
Subject: an additional fact not checked on friday

its in bright pink... the only pink text in the file. No. 73.



Caution Check - NE

CH 5 doc

4/11
Cook, Trevor

From: Cook, Trevor
Sent: Monday, May 07, 2001 3:14 PM
To: Anderson, Margot
Subject: here is one citation



NEmp. Citations
Needed as

4966

DOE008-1109

49

Cook, Trevor

From: Cook, Trevor
Sent: Friday, May 04, 2001 4:26 PM
To: Anderson, Margot, Magwood, William
Cc: Braitsch, Jay
Subject: chapter 3 ne input...

did not find a specific reference to one item.. some of these things are statements of common experience. i.e. they sky is blue!



ME - CRAWFORDS CH3 doc

LM? Cook, Trevor

From: Cook, Trevor
Sent: Friday, May 04, 2001 3:57 PM
To: Anderson, Margot; Braitsch, Jay; Magwood, William
Subject: attached is chapter 5 nuke fact check

all nuclear facts in italics, could not find a reference for the very first one, all others covered

BF

Custom Check - NE -
CH 5 doc

4975

DOE008-1118

477 Cook, Trevor

From: Cook, Trevor
Sent: Tuesday, May 01, 2001 10:04 AM
To: Kelliher, Joseph; Anderson, Margot
Cc: Magwood, William
Subject: nuclear safety words

attached is a MS word file with the requested text.



nuclear safety doc

50
Cook, Trevor

b5

From: Cook, Trevor
Sent: Tuesday, May 01, 2001 9:45 AM
To: Anderson, Margot; Carter, Douglas
Cc: Magwood, William
Subject: RE: Going to Press: chapter 3

I drafted the safety stuff, its in review, will have it out in about 10 mins.

Trev.

-----Original Message-----

From: Anderson, Margot
Sent: Tuesday, May 01, 2001 8:49 AM
To: Cook, Trevor; Carter, Douglas
Cc: Magwood, William
Subject: Going to Press: chapter 3

Doug and Trevor,

By 10:00 if possible. Thanks.

Margot

-----Original Message-----

From: Charles M. Smith@ovp.eop.gov\internet
[mailto:Charles_M_Smith@ovp.eop.gov]
Sent: Monday, April 30, 2001 10:25 PM
To: Kelliner, Joseph; Anderson, Margot;
Moss, Jacob@epamail.epa.gov\internet;
William_bettenberg@ios.doi.gov\internet; Tom_fulton@ios.doi.gov\internet
Cc: Kjersten_orager@ovp.eop.gov\internet;
Andrew_D_Lundquist@ovp.eop.gov\internet;
Karen_Y_Knutson@ovp.eop.gov\internet
Subject: chapter 3

The following are the remaining open items in the Environment chapter: _____

b5

4985

I need this literally first thing in the am. Chapter 3 is to be laid out starting about noon.

Charlie

4986

DOE008-1129

50
Cook, Trevor

b3

From: Cook, Trevor
Sent: Tuesday, May 01, 2001 8:58 AM
To: Kelliher, Joseph
Subject: RE: nuclear safety

Just got this email, you will have it in an hour.

Trevor.

-----Original Message-----

From: Kelliher, Joseph
Sent: Tuesday, May 01, 2001 8:10 AM
To: Magwood, William; Cook, Trevor
Cc: Anderson, Margot
Subject: nuclear safety

4987

DOE008-1130

502

Williams, Ronald L

From: Cook, Trevor
Sent: Friday, February 16, 2001 1:30 PM
To: Anderson, Margot
Cc: Magwood, William
Subject: NE input to chapter one

Hello Margot,

here is the NE input to chapter one... we had a last second glitch with power point and cant get the graphics files to merge in the document... if you can use the graphics files we had in mind separately... we will gladly provide them, but likely you would have the same glitch.

anyway.... hope this made it to you in time.

Trevor.



NE - TWO PAGE PAPER
IN CHAPTER...

504

Williams, Ronald L

From: Cook, Trevor
Sent: Friday, February 16, 2001 1:40 PM
To: Anderson, Margot
Cc: Magwood, William
Subject: here is the NE international piece, could you forward it to the coordinator?

Hi again Margot,

I am afraid I do not know the coordinator of chapter 7 and the international content, these few paragraphs are our input to that section.

Would you mind forwarding this email to the proper person?

Trevor



INTERNATIONAL
SECTION INPUT FR...

4991

DOE008-1134

5-00

Williams, Ronald L

From: Cook, Trevor
Sent: Friday, February 16, 2001 2:04 PM
To: Anderson, Margot
Subject: ppt files and annotated input

Margot,

attached are two power point files and our chapter one input with notes as to where the power point files go.

we couldn't get this to work... so don't try to hard, something about letter size scaling when moving from ppt to Microsoft word...

.....again, I wouldn't sweat this, its nice to have, but we couldn't solve the problem.

Trevor.



NE - TWO PAGE PAPER
IN CHAPTER...



nuclear emissions.ppt



nuclear usa map.ppt

500

Williams, Ronald L

From: Watts, Edward
Sent: Friday, February 16, 2001 3:00 PM
To: Anderson, Margot
Cc: Conti, John
Subject: NEP Electricity Text and Figures



NEPELG-1.PPT



NEPelectricity3.DOC

4998

510

Williams, Ronald L

From: PETTIS, LARRY
Sent: Friday, February 16, 2001 6:01 PM
To: Anderson, Margot
Subject: FW: Chapter 1 NEP



CH1.DOC



OVERVIEW.PPT



JK_021-1.PPT



NEPELG-1.PPT



NEPCOA-1.PPT

Margot,

Attached are our inputs for Section 1. We merged all the text together but kept the graphics separate — in this order below — overview, oil and natural gas, electricity and coal.

In the text we have incorporated Policy and FE input and just tried to make sure the facts were correct.

—Original Message—

From: Kendell, James
Sent: Friday, February 16, 2001 2:53 PM
To: Pettis, Larry
Cc: Sitzer, Scott; Holte, Susan; Hutzler, Mary
Subject: Chapter 1 NEP

Larry,

Here's the text:

Here are the graphics:

JK

5008

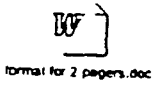
DOE008-1151

514

Stamos, John

From: Cook, Trevor
Sent: Friday, March 30, 2001 9:53 AM
To: Connell, Elizabeth; Stamos, John; Herczeg, John; Johnson, Shane; Magwood, William; Knipp, Robert; Marcus, Gail
Subject: National Energy Policy Task Force Papers
Importance: High

513



517


b5

Stamos, John

From: Savage, Buzz
Sent: Tuesday, March 27, 2001 7:59 AM
To: Johnson, Shane
Cc: Stamos, John; Cook, Trevor; Bartell, Joseph
Subject: Policy papers

Buzz


CONSTRUCTABILITY
POLICY v2.doc...


NUKE
RASTRUCTURE SUPPORT v2

5021

DOE008-1164

510

Stamos, John

From: Cook, Trevor
Sent: Monday, March 26, 2001 10:54 AM
To: Stamos, John
Subject: FW: These are the remaining placeholders for the nuclear policy initiatives
Importance: High


—Original Message—


From: Cook, Trevor
Sent: Friday, March 23, 2001 12:54 PM
To: Anderson, Margot
Subject: These are the remaining placeholders for the nuclear policy initiatives
Importance: High


Thanks for getting these in, we will have full papers on Tuesday, possibly Wednesday, but these convey the gist of our ideas.


Federal Site for
commercial po.


MARKET DRIVE
SPENT FUEL.doc


Direct Funding of NRC
fees.doc..


NUKE
RASTRUCTURE SUPPORT do


Accelerated
Depreciation of Nu.


CONSTRUCTABILITY
POLICY.doc

these go along with the one I sent you yesterday on regulatory reform and the three priors. (waste management, generation IV, sustainable classification)

Trevor.

5026

DOE008-1169

527

Stamos, John

From: Cook, Trevor
Sent: Monday, March 26, 2001 9:24 AM
To: Magwood, William
Cc: Stamos, John
Subject: FW: Chapter 8 (Increased production of U.S. Energy Resources).

Bill.

Trev.

-----Original Message-----

From: Anderson, Margot
Sent: Saturday, March 24, 2001 10:41 AM
To: Conti, John; Haspel, Abe; Zimmerman, MaryBeth; Lockwood, Andrea; Breed, William; KYDES, ANDY; Whatley, Michael; Carter, Douglas; Braitsch, Jay; Melchert, Elena; Cook, Trevor; Breed, William; 'jks-tier@bpa.gov'; York, Michael; Freitas, Christopher; Friedrichs, Mark; Pumphrey, David; Kolevar, Kevin
Cc: Kelliher, Joseph
Subject: Chapter 8 (Increased production of U.S. Energy Resources).

Chapter 8 (Increased production of U.S. Energy Resources).

Task Force Charlie: This can go out to other Agencies for review. Includes comments from meeting on 2/21.



ch 8 march 24 doc



chapter 8 graphics
March 24.p

527

(b)(3)

Williams, Ronald L

From: Brown.Ellen@epamail.epa.gov%internet [Brown.Ellen@epamail.epa.gov]
Sent: Tuesday, February 27, 2001 5:39 PM
To: Anderson, Margot
Subject: RE: EPA comments

564-1669

"Anderson, Margot" <Margot.Anderson@hq.doe.gov>
02/27/01 01:14 PM

To: Ellen Brown/DC/USEPA/US@EPA
cc:
Subject: RE: EPA comments
Please send me your phone number.

—Original Message—

From: Brown.Ellen@epamail.epa.gov%internet
[mailto:Brown.Ellen@epamail.epa.gov]
Sent: Tuesday, February 27, 2001 12:45 PM
To: Anderson, Margot
Cc: Symons.Jeremy@epamail.epa.gov%internet
Subject: EPA comments



tmp.htm

528

(b)(5)

564-1669

"Anderson, Margot" <Margot.Anderson@hq.doe.gov>

To: Ellen Brown/DC/USEPA/US@EPA

02/27/01 01:14 PM

cc:

Subject RE: EPA comments

Please send me your phone number.

-----Original Message-----

From: Brown, Ellen@epamail.epa.gov<internet

[mailto:Brown, Ellen@epamail.epa.gov]

Sent: Tuesday, February 27, 2001 12:45 PM

To: Anderson, Margot

Cc: Symons, Jeremy@epamail.epa.gov<internet

Subject: EPA comments

529

(b)(3)

Williams, Ronald L

From: Cook, Trevor
Sent: Tuesday, February 27, 2001 1:29 PM
To: Anderson, Margot
Subject: comments on the draft - none important

Trevor.

531

b5

Williams, Ronald L

From: Kelliher, Joseph
Sent: Tuesday, February 13, 2001 6:39 PM
To: Anderson, Margot
Subject: RE: electricity prices

Can we get our group together at 9 or 9:30 tomorrow to go over our assignment? We should include NE and FE to the group we assembled last time. Things are a little clearer after the White House meeting. The sooner the better. I have an 8 tomorrow that should finish by 9, and may have to go to a 10:30 at the White House on Mexico. If 9 or 9:30 do not work and the 10:30 does not fall away 12 is probably the next safest time. If we can't get the group together at 9 or 9:30 perhaps you, Conti and I could sit down and you can get to work in my absence. After I clarify our assignment to you or the group we can start writing. We have to submit a draft by 2/20, and a very good penultimate draft on 2/23. Perhaps we should talk in advance about writing teams.

—Original Message—

From: Anderson, Margot
Sent: Tuesday, February 13, 2001 4:07 PM
To: Kelliher, Joseph
Subject: electricity prices

Joe,

You asked about electricity prices. Tracy did some detective work:

Margot

53 ✓

Williams, Ronald L

From: Kelliher, Joseph
Sent: Tuesday, February 13, 2001 1:05 PM
To: Anderson, Margot
Subject: FW: Draft outline



Draft outline.doc

This is from the White House. Please review and comment. I have a meeting at the White House at 3:00.

—Original Message—

From: Karen_Y_Knutson@ovp.eop.gov%internet
[mailto:Karen_Y_Knutson@ovp.eop.gov]
Sent: Tuesday, February 13, 2001 12:53 PM
To: Kelliher, Joseph; Bruce.Baughman@FEMA.gov%internet;
Beale.John@EPA.gov%internet; Brenner.Rob@EPA.gov%internet;
Keith.Collins@USDA.gov%internet; Dina.Ellis@do.treas.gov%internet;
John_Fenzel@ovp.eop.gov%internet;
Tom_Fulton@iosiscns1.ios.DOI.gov%internet;
Galloglisj@State.gov%internet; Joseph.Glauber@USDA.gov%internet;
Karen_Y_Knutson@ovp.eop.gov%internet;
Andrew_D_Lundquist@ovp.eop.gov%internet; McManusmt@State.gov%internet;
Robert_C_McNally@opd.eop.gov%internet; KMurphy@Osec.doc.gov%internet;
MPeacock@omb.eop.gov%internet; Michelle.Poche@OST.DOT.gov%internet;
Patricia.Stahlschmidt@FEMA.gov%internet; Symons.Jeremy@EPA.gov%internet;
Sue_Ellen_Wooldridge@IOS.DOI.gov%internet
Subject: Draft outline

(See attached file: Draft outline.doc)

Attached is the draft outline. It looks like a great start.

Karen

539

Williams, Ronald L

From: MaryBeth Zimmerman
Sent: Tuesday, February 13, 2001 3:05 PM
To: Anderson, Margot
Cc: Friedrichs, Mark
Subject: 1 pager on energy



1 page energy needs.doc

541

Tripodi, Cathy

From: Kelliher, Joseph
Sent: Tuesday, July 03, 2001 6:11 PM
To: Tripodi, Cathy
Subject: FW: Attachments for Monday NEP meeting

Predecisional: draft NEP recommendations

-----Original Message-----

From: Anderson, Margot
Sent: Friday, March 02, 2001 5:33 PM
To: Cook, Trevor; Scalingi, Paula; PETTIS, LARRY; KENDELL, JAMES; Zimmerman, MaryBeth; Sullivan, John; 'jksstier@bpa.gov'; Knpowicz, Robert; Haspel, Abe; Magwood, William; 'jksstier@bpa.gov'; Whatley, Michael; Braitsch, Jay; Conti, John; Carter, Douglas; KYDES, ANDY; Pumphrey, David; Hart, James; KYDES, ANDY; Breed, William; Conti, John
Cc: Kelliher, Joseph
Subject: Attachments for Monday NEP meeting

All,

Reminder that we will be meeting in room 7B-040 at 1:00 on Monday (3/5) to begin the discussion of energy policy options for the national energy policy (phase 2 of our efforts).

Attached is the draft (pdf file) of the interim report that we have been working on (the U.S. energy situation). A version of the report will be going to the Task Force next week (this is still a document for internal discussion only). Also attached is a preliminary list of policy goals to help center the discussion on policy options consistent with those goals.

Look forward to seeing you on Monday.

Margot



NEP Policy
Issues.doc



NatEnergy.pdf

5114

DOE008-1257

543

(b)(5)

Williams, Ronald L

From: Cook, Trevor
Sent: Tuesday, February 27, 2001 2:00 PM
To: Anderson, Margot
Subject: OOPS! Bill has the following two changes!

Importance: High

thats all...

Trevor.

5130

DOE008-1273

504

b5

Williams, Ronald L

From: Kelliher, Joseph
Sent: Tuesday, February 13, 2001 7:12 PM
To: Anderson, Margot
Subject: RE: more meeting attendees

From: Anderson, Margot
Sent: Tuesday, February 13, 2001 7:03 PM
To: Kelliher, Joseph
Subject: more meeting attendees

Joe,

Margot

—Original Message—

From: Kelliher, Joseph
Sent: Tuesday, February 13, 2001 6:39 PM
To: Anderson, Margot
Subject: RE: electricity prices

Can we get our group together at 9 or 9:30 tomorrow to go over our assignment? We should include NE and FE to the group we assembled last time. Things are a little clearer after the White House meeting. The sooner the better. I have an 8 tomorrow that should finish by 9, and may have to go to a 10:30 at the White House on Mexico. If 9 or 9:30 do not work and the 10:30 does not fall away 12 is probably the next safest time. If we can't get the group together at 9 or 9:30 perhaps you, Conti and I could sit down and you can get to work in my absence. After I clarify our assignment to you or the group we can start writing. We have to submit a draft by 2/20, and a very good penultimate draft on 2/23. Perhaps we should talk in advance about writing teams.

—Original Message—

From: Anderson, Margot
Sent: Tuesday, February 13, 2001 4:07 PM
To: Kelliher, Joseph
Subject: electricity prices

Joe,

You asked about electricity prices. Tracy did some detective work:

5131

Margot

Williams, Ronald L

From: Porter, Robert
Sent: Wednesday, February 14, 2001 2:50 PM
To: Anderson, Margot
Cc: Kripowicz, Robert; Rudins, George; Carter, Douglas; DeHoratiis, Guido; Johnson, Nancy; Shages, John; Furiga, Richard
Subject: RE: draft NEP instructions

Margot – We have reviewed the paper with Bob Kripowicz and have the following comments on the Section-by-Section assignments:

Bob Porter

5133

DOE008-1276

540

Office of Fossil Energy

—Original Message—

From: Anderson, Margot
Sent: Wednesday, February 14, 2001 12:38 PM
To: Kripowicz, Robert; Haspel, Abe; Sullivan, John; Zimmerman, MaryBeth; Magwood, William; Pumphrey, David; Hart, Carole; Scalingi, Paula; Whatley, Michael
Cc: Kelliher, Joseph
Subject: draft NEP instructions

All,

Please review.

What did I miss from the discussion today?

Note assignments are by office - some of you are asked provide names to Joe, me or other offices to complete tasks.

If only one or two offices are contributing the bulk of the information, I am asking one office to compile the bits prior to sending to me. Saves me some time and I can focus on overall gaps.

Also attached outline Joe was working from.

Please get back to me by 2:30 (if possible) with your comments on the instructions. I will edit and send out "officially" ASAP.

I will also need to know who will be doing one so I don't have to bug you all the time.

Margot

<< File: NEP organization.doc >> << File: Draft combo outline WH.doc >>

547

b5

Tripodi, Cathy

From: Kelliher, Joseph
Sent: Tuesday, July 03, 2001 5:53 PM
To: Tripodi, Cathy
Subject: FW: DOT Comments

Predecisional: draft NEP recommendations

-----Original Message-----

From: Anderson, Margot
Sent: Sunday, March 25, 2001 1:19 PM
To: Kelliher, Joseph
Subject: FW: DOT Comments

Joe,

Looks like we have DOT's attention. If you keep scrolling down, you will see some policy recommendations. You should take a look and decide if you want to keep or toss.

Margot

-----Original Message-----

From: Poche, Michelle (mailto:Michelle.Poche@ost.dot.gov)
Sent: Saturday, March 24, 2001 4:18 PM
To: Kelliher, Joseph
Cc: Anderson, Margot; Symons.Jeremy(a)EPA.gov
Subject: DOT Comments

Joe and Margot,

Here are some comments from DOT policy staff on your chapters. Since our systems don't always talk to each other, I'll paste them below into this email as well as attaching a document. Please let me know if you have questions, and I'll run them down with the folks who have offered these suggestions.

Jeremy, Joe and Margot.

Thanks,
Michelle

Chapter 3

548

b5

Rewrite of Transportation Section, Page 4

5137

DOE008-1280



DOT comments.doc

ESD

Williams, Ronald L

From: MaryBeth Zimmerman
Sent: Wednesday, February 14, 2001 3:43 PM
To: Silverman, Linda
Cc: Anderson, Margot
Subject: OVP draft briefer



021301 OVP briefer

input.doc Linda, PO will be coordinating DOE responses to the State Department's international piece. Please provide Margo Anderson with your comments as well as us. Thanks.

..... Forwarded by MaryBeth Zimmerman/EE/DOE on 02/14/2001 03:41 PM



"Dunn, Patrick M" <DunnPM@state.gov> on 02/14/2001 01:06:34 PM

To: "Thompson, Griffin" <GThompson@usaid.gov>, "Robl, Terri L" <RoblTL@state.gov>, MaryBeth Zimmerman/EE/DOE@DOE
cc:

Subject: OVP draft briefer

<<021301 OVP briefer input.doc>>

Grif/Marybeth:

I welcome your thoughts. Thanks for your help.

!

5142

DOE008-1285

52

Williams, Ronald L

From: Porter, Robert
Sent: Tuesday, February 13, 2001 2:09 PM
To: Anderson, Margot
Subject: Comments on Energy Strategy Outline

FE has reviewed the paper. Our only major changes are indicated in red on page 1.

There are also minor changes on p. 3, 14, 15. We have also inserted an item on p. 21 that was submitted in the DOT paper.

Bob Porter



Draft outline.doc

557

B-5

Kelliher, Joseph

From: Anderson, Margot
Sent: Friday, April 20, 2001 12:41 PM
To: Vemet, Jean
Cc: Carter, Douglas; Conti, John; Kelliher, Joseph
Subject: RE: NSR

Jean,

b15

Margot

-----Original Message-----

From: Vemet, Jean
Sent: Friday, April 20, 2001 11:36 AM
To: Anderson, Margot
Cc: Carter, Douglas; Conti, John
Subject: RE: NSR

Margot: Report from the call. Brenner, Gibson, and Schmidt on call.

Bottom line:

4. **Joe said you had the latest environment chapter, and could share it with me (it's difficult to discuss issues with EPA when you haven't seen any version more current than the first.) Thanks.

Jean

-----Original Message-----

From: Anderson, Margot
Sent: Friday, April 20, 2001 9:15 AM
To: Vemet, Jean
Subject: RE: NSR

Thanks. I won't be there. I am swamped with WH orders for the NEP. I called Joe to tell him. Unless he insists, I am tying myself to my computer.

8
5

b5

Stamos, John

From: Cook, Trevor
Sent: Wednesday, March 21, 2001 12:12 PM
To: Magwood, William
Cc: Stamos, John
Subject: Heads up on the National Energy Policy Development for Nuclear
Importance: High

due today or early tomorrow

Bill, have you finished your testimony? Maybe we could use some of that.

-----Original Message-----

From: Anderson, Margot
Sent: Wednesday, March 21, 2001 11:57 AM
To: Cook, Trevor
Subject: as we discussed



sect.doc

Helpful to use redline method if you can!

562

—Original Message—

From: Kelliher, Joseph
Sent: Monday, February 12, 2001 4:57 PM
To: Anderson, Margot
Subject: RE: NEPD Outlines

-5 [

] ? I don't know when we will have comments.

—Original Message—

From: Anderson, Margot
Sent: Monday, February 12, 2001 4:54 PM
To: Kelliher, Joseph
Subject: RE: NEPD Outlines

Joe,

Will do. Anything else you need done today? [

B

Are we expecting comments back on the outlines tomorrow?

5 [

B

Margot

—Original Message—

From: Kelliher, Joseph
Sent: Monday, February 12, 2001 4:37 PM
To: Anderson, Margot
Subject: RE: NEPD Outlines

5 [

—Original Message—

From: Anderson, Margot
Sent: Monday, February 12, 2001 4:35 PM
To: Kelliher, Joseph
Subject: RE: NEPD Outlines

Joe,

Do you want me to add this to the outlines I sent you or just wait until the next round (presuming there is one?)

Margot

—Original Message—

From: Kelliher, Joseph
Sent: Monday, February 12, 2001 4:32 PM
To: Anderson, Margot
Subject: FW: NEPD Outlines

FYI - EPA submission

—Original Message—

562

B - 3

Williams, Ronald L

From: Kelliher, Joseph
Sent: Monday, February 12, 2001 5:38 PM
To: Anderson, Margot
Subject: RE: NEPD Outlines

From: Anderson, Margot
Sent: Monday, February 12, 2001 5:21 PM
To: Kelliher, Joseph
Subject: RE: NEPD Outlines

Joe,

My thoughts on NEPD organization:

b15

Margot

563

—Original Message—

From: Kelliher, Joseph
Sent: Monday, February 12, 2001 4:57 PM
To: Anderson, Margot
Subject: RE: NEPD Outlines

Good idea about writing teams. How do you propose they be set up? I don't know when we will have comments.

—Original Message—

From: Anderson, Margot
Sent: Monday, February 12, 2001 4:54 PM
To: Kelliher, Joseph
Subject: RE: NEPD Outlines

Joe,

Will do. Anything else you need done today?
you?

Are we expecting comments back on the outlines tomorrow?

Margot

—Original Message—

From: Kelliher, Joseph
Sent: Monday, February 12, 2001 4:37 PM
To: Anderson, Margot
Subject: RE: NEPD Outlines

—Original Message—

From: Anderson, Margot
Sent: Monday, February 12, 2001 4:35 PM
To: Kelliher, Joseph
Subject: RE: NEPD Outlines

Joe,

Do you want me to add this to the outlines I sent you or just wait until the next round (presuming there is one?)

Margot

—Original Message—

From: Kelliher, Joseph
Sent: Monday, February 12, 2001 4:32 PM
To: Anderson, Margot
Subject: FW: NEPD Outlines

FYI - EPA submission

567

Williams, Ronald L

From: Scalingi, Paula
Sent: Monday, February 12, 2001 6:00 PM
To: Anderson, Margot
Cc: Jim Peerenboom (E-mail)
Subject: FW: Outline Changes

Margot,

Here are OCIP's recommended changes. Let the DOT people know that we will provide the text for the report that corresponds to the outline we provided, if this is useful.

Cheers,
Paula

—Original Message—

From: Peerenboom, James P. [mailto:jpeerenboom@anl.gov] <mailto:[mailto:jpeerenboom@anl.gov]>
Sent: Monday, February 12, 2001 5:47 PM
To: Scalingi, Paula
Subject: Outline Changes



Outline_Changes.doc

561

Williams, Ronald L

From: Kelliher, Joseph
Sent: Monday, February 12, 2001 6:10 PM
To: Anderson, Margot
Subject: RE: Outline

(b)(5)

—Original Message—

From: Anderson, Margot
Sent: Monday, February 12, 2001 6:08 PM
To: Kelliher, Joseph
Subject: RE: Outline

Joe,

Just saw this note on formats. I'll take a look and we can use for next round. I guess I better learn WORD!

Margot

—Original Message—

From: Kelliher, Joseph
Sent: Monday, February 12, 2001 4:28 PM
To: Anderson, Margot
Subject: Outline

—Original Message—

From: John_Fenzel@ovp.eop.gov%internet [mailto:John_Fenzel@ovp.eop.gov]
Sent: Monday, February 12, 2001 3:45 PM
To: Kelliher, Joseph
Subject: Outline

Joe, We realized that DOE has been given the bulk of the work with the three working groups you are assigned. If it is helpful, we wanted to forward a completed outline that we received that you may be able to use as a rough template. Please give us a call if we can be of any assistance!

Best Wishes,

John Fenzel

368

b5

Williams, Ronald L

From: MaryBeth Zimmerman
Sent: Monday, February 12, 2001 6:51 PM
To: Anderson, Margot; Kelliher, Joseph
Cc: FRIEDMAN, MARK; Haspel, Abe; Jeffery, Nancy; Garland, Buddy
Subject: revised outline for Sec. D



Section D, revised.doc

We continued to clean up the outline for Sec. D a bit, and hope that this version is a bit clearer than the 3:30 version.

Please let us know if you have any questions.

571

Williams, Ronald L

From: Kelliher, Joseph
Sent: Monday, February 12, 2001 10:09 PM
To: Anderson, Margot
Subject: Outlines: regional information



toutreg1.doc

b3/s 1

573

E - I

Williams, Ronald L

From: Porter, Robert
Sent: Tuesday, February 13, 2001 10:22 AM
To: Anderson, Margot
Subject: Comments on Kelliher paper

Margot:

h

Bob Porter

574
B-5
Williams, Ronald L

From: PETTIS, LARRY
Sent: Tuesday, February 13, 2001 1:40 PM
To: Anderson, Margot
Subject: RE: Outlines: regional information

We are working on this and should have our changes to you by 11:00a.

—Original Message—

From: Margot Anderson_at_HQ-EXCH at X400PO
Sent: Tuesday, February 13, 2001 8:26 AM
To: Pettis, Larry; Robert Porter_at_HQ-EXCH at X400PO; William Breed_at_HQ-EXCH at X400PO; John Conti_at_HQ-EXCH at X400PO
Subject: FW: Outlines: regional information

All,

Can you take a quick look at this?

P.S. Use WORD. Software of choice!

Margot

—Original Message—

From: Kelliher, Joseph
Sent: Monday, February 12, 2001 10:09 PM
To: Anderson, Margot
Subject: Outlines: regional information

574

Williams, Ronald L

From: PETTIS, LARRY
Sent: Tuesday, February 13, 2001 2:05 PM
To: Anderson, Margot
Subject: FW: Regional Issues



TOUTRE-1.DOC

Attached is a revised version.

—Original Message—

From: Skinner, Bill
Sent: Tuesday, February 13, 2001 10:58 AM
To: Pettis, Larry
Subject: Regional Issues

Here is what I have so far. I am bringing you a printed copy.

581

(b)(5)

Williams, Ronald L

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 1:36 PM
To: Anderson, Margot
Subject: RE: new draft

Sure.

-----Original Message-----

From: Anderson, Margot
Sent: Monday, February 26, 2001 1:33 PM
To: Kelliher, Joseph
Subject: RE: new draft

Do you want me to send it around for DOE review to the program offices?

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 1:26 PM
To: Anderson, Margot
Subject: new draft

Sorry, I just realized I never sent it to you

<< File: sec1.4.doc >> << File: secreg3.doc >>

58 V

Williams, Ronald L

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 2:24 PM
To: Anderson, Margot
Subject: RE: new draft

Ow. Where will there concerns be?

-----Original Message-----

From: Anderson, Margot
Sent: Monday, February 26, 2001 2:20 PM
To: Kelliher, Joseph
Subject: RE: new draft

Okay. Sent it out.

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 1:36 PM
To: Anderson, Margot
Subject: RE: new draft

Sure. i

-----Original Message-----

From: Anderson, Margot
Sent: Monday, February 26, 2001 1:33 PM
To: Kelliher, Joseph
Subject: RE: new draft

Do you want me to send it around for DOE review to the program offices?

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 1:26 PM
To: Anderson, Margot
Subject: new draft

Sorry. I just realized I never sent it to you

<< File: sec1.4.doc >> << File: secreg3.doc >>

583

Williams, Ronald L

(b)

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 2:47 PM
To: Anderson, Margot
Subject: RE: new draft

-----Original Message-----

From: Anderson, Margot
Sent: Monday, February 26, 2001 2:44 PM
To: Kelliher, Joseph
Subject: RE: new draft

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 2:24 PM
To: Anderson, Margot
Subject: RE: new draft

Ow.

-----Original Message-----

From: Anderson, Margot
Sent: Monday, February 26, 2001 2:20 PM
To: Kelliher, Joseph
Subject: RE: new draft

Okay, Sent it out

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 1:36 PM
To: Anderson, Margot
Subject: RE: new draft

Sure.

-----Original Message-----

From: Anderson, Margot
Sent: Monday, February 26, 2001 1:33 PM
To: Kelliher, Joseph
Subject: RE: new draft

Do you want me to send it around for DOE review to the program offices?

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 1:26 PM
To: Anderson, Margot
Subject: new draft

5291

Sorry, I just realized I never sent it to you

<< File: sec1.4.doc >> << File: secreg3.doc >>

584

(b)(5)

Williams, Ronald L

From: Terry, Tracy
Sent: Monday, February 26, 2001 4:26 PM
To: Anderson, Margot; Conti, John
Subject: RE: NEP graphs - more on elec



elec graphs.ppt

Here are the graphs. I did the final chart a couple of different ways. If you want to play with the callout box on the final graph, select "Draw" then "Ungroup" from the Drawing toolbar.

Tracy

-----Original Message-----

From: Anderson, Margot
Sent: Monday, February 26, 2001 1:36 PM
To: Terry, Tracy; Conti, John
Subject: RE: NEP graphs - more on elec

Help me. I am confused. Can you or John stop by and explain these to me.

-----Original Message-----

From: Terry, Tracy
Sent: Monday, February 26, 2001 12:18 PM
To: Conti, John; Anderson, Margot
Subject: NEP graphs - more on elec

Margot,

b7c

Tracy

<< File: elec graphs.ppt >>

-----Original Message-----

From: Conti, John
Sent: Monday, February 26, 2001 8:18 AM
To: Anderson, Margot
Cc: Terry, Tracy
Subject: RE: NEP graphs - elec

5293

(b) (5)

-----Original Message-----

From: Anderson, Margot
Sent: Monday, February 26, 2001 8:04 AM
To: Conti, John; Terry, Tracy
Subject: RE: NEP graphs - elec

-----Original Message-----

From: Conti, John
Sent: Monday, February 26, 2001 8:02 AM
To: Terry, Tracy; Anderson, Margot
Subject: RE: NEP graphs - elec

-----Original Message-----

From: Terry, Tracy
Sent: Friday, February 23, 2001 5:26 PM
To: Anderson, Margot
Cc: Conti, John
Subject: NEP graphs - elec

Margot - Attached is a Power Point file with the graphs we discussed

Tracy

<< File: elec graphs.ppt >>

810
Williams, Ronald L

(b)(5)

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 6:00 PM
To: Anderson, Margot
Subject: solutions

57
-----Original Message-----

From: Anderson, Margot
Sent: Monday, February 26, 2001 2:44 PM
To: Kelliher, Joseph
Subject: RE: new draft

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 2:24 PM
To: Anderson, Margot
Subject: RE: new draft

Ow

-----Original Message-----

From: Anderson, Margot
Sent: Monday, February 26, 2001 2:20 PM
To: Kelliher, Joseph
Subject: RE: new draft

Okay, Sent it out.

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 1:36 PM
To: Anderson, Margot
Subject: RE: new draft

Sure

-----Original Message-----

From: Anderson, Margot
Sent: Monday, February 26, 2001 1:33 PM
To: Kelliher, Joseph
Subject: RE: new draft

Do you want me to send it around for DOE review to the program offices?

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 1:26 PM
To: Anderson, Margot

5303

Subject: new draft

Sorry, I just realized I never sent it to you

<< File: sec1.4.doc >> << File: secreg3.doc >>

58

(b)(5)

Williams, Ronald L

From: KYDES, ANDY
Sent: Tuesday, February 27, 2001 12:17 PM
To: Anderson, Margot
Subject: RE: new draft

Margot

Andy

-----Original Message-----

From: Margot Anderson_at_HQ-EXCH at X400PO
Sent: Monday, February 26, 2001 1:46 PM
To: Pettis, Larry; Kendell, James; Kydes, Andy; TREVOR COOK_at_HQ-EXCH at X400PO; Paula Scalingi_at_HQ-EXCH at X400PO; jkstier@bpa.gov_at_internet at X400PO; Robert Kripowicz_at_HQ-EXCH at X400PO; WILLIAM MAGWOOD_at_HQ-EXCH at X400PO; Michael Whatley_at_HQ-EXCH at X400PO; Jay Braitsch_at_HQ-EXCH at X400PO; John Conti_at_HQ-EXCH at X400PO; Douglas Carter_at_HQ-EXCH at X400PO; David Pumphrey_at_HQ-EXCH at X400PO; James HART_at_HQ-EXCH at X400PO; MaryBeth Zimmerman_at_HQ-NOTES at X400PO; John Sullivan_at_HQ-NOTES at X400PO; Abe Haspel_at_HQ-NOTES at X400PO
Cc: William Breed_at_HQ-EXCH at X400PO; Robert Marlay_at_HQ-EXCH at X400PO
Subject: FW: new draft

All,

Margot

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 1:26 PM
To: Anderson, Margot
Subject: new draft

Sorry, I just realized I never sent it to you

980

(b)(5)

Williams, Ronald L

From: Kelliher, Joseph
Sent: Tuesday, February 27, 2001 9:34 AM
To: Anderson, Margot
Subject: RE: solutions

Can you stop by after 11? We could talk about this and about providing input into the other sections of the report.

—Original Message—

From: Anderson, Margot
Sent: Monday, February 26, 2001 6:20 PM
To: Kelliher, Joseph
Subject: RE: solutions

Joe,

Sure we can get started.

(b)(5)

Margot

—Original Message—

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 6:00 PM
To: Anderson, Margot
Subject: solutions

(b)(5)

—Original Message—

From: Anderson, Margot
Sent: Monday, February 26, 2001 2:44 PM
To: Kelliher, Joseph
Subject: RE: new draft

(b)(5)

—Original Message—

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 2:24 PM
To: Anderson, Margot
Subject: RE: new draft

B - S

Ow.

—Original Message—

From: Anderson, Margot
Sent: Monday, February 26, 2001 2:20 PM
To: Kelliher, Joseph
Subject: RE: new draft

Okay, Sent it out:

(b)(5)

5306

B-5 L

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 1:36 PM
To: Anderson, Margot
Subject:

Sure

B-5

-----Original Message-----

From: Anderson, Margot
Sent: Monday, February 26, 2001 1:33 PM
To: Kelliher, Joseph
Subject: RE: new draft

Do you want me to send it around for DOE review to the program offices?

-----Original Message-----

From: Kelliher, Joseph
Sent: Monday, February 26, 2001 1:26 PM
To: Anderson, Margot
Subject: new draft

Sorry, I just realized I never sent it to you

<< File: sec1.4.doc >> << File: secreg3.doc >>

(b)(3)

588

Williams, Ronald L

From: MaryBeth Zimmerman
Sent: Tuesday, February 27, 2001 11:13 AM
To: Anderson, Margot
Cc: Sullivan, John; Haspel, Abe
Subject: Efficiency items for NEP

(b) (5)



Renewables Chapter
Edited.DOC
discussed:



Efficiency chapter with
edits...



Impacts chapter --
edited.DOC

here's a crack at the paragraph we

517

(b) (5)

Williams, Ronald L

From: Brown.Ellen@epamail.epa.gov%internet [Brown.Ellen@epamail.epa.gov]
 Sent: Tuesday, February 27, 2001 12:45 PM
 To: Anderson, Margot
 Cc: Symons.Jeremy@epamail.epa.gov%internet
 Subject: EPA comments



tmp.htm



epol2-26new.wpd



epol2-26rdln.wpd

Margot, Here are our comments on the Intro

and "Taking Stock". It's in
 redline and also straight so I hope this will make it easier for folks to
 use.

(b) (5)

(b)(5)

5/2/14

Margot, Here are our comments on the Intro and "Taking Stock". It's in redline and also straight so I hope this will make it easier for folks to use!

507

65

Williams, Ronald L

From: MaryBeth Zimmerman
Sent: Wednesday, February 14, 2001 6:00 PM
To: York, Michael
Subject: Re: OVP draft briefer



ATTACHMENT.TXT

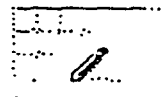


021301 OVP briefer
input.doc

Could you John and Linda's comments (both posed on P drive; John's below), so that we can forward a single set of comments to PO? My observations:

Thanks.

..... Forwarded by MaryBeth Zimmerman/EE/DOE on 02/14/2001 05:55 PM



John Millhone
02/14/2001 04:12 PM

To: MaryBeth Zimmerman/EE/DOE@DOE
cc:

Subject: Re: OVP draft briefer

Here's some quick inputs using redlines and strikeouts.

597

Tripodi, Cathy

From: Kelliher, Joseph
Sent: Tuesday, July 03, 2001 5:58 PM
To: Tripodi, Cathy
Subject: FW: Wednesday (3/21) NEP update

Predecisional: draft NEP recommendations

-----Original Message-----

From: Anderson, Margot
Sent: Wednesday, March 21, 2001 6:35 PM
To: Anderson, Margot; Conti, John; Haspel, Abe; Zimmerman, MaryBeth; Lockwood, Andrea; Breed, William; KYDES, ANDY; Whatley, Michael; Carter, Douglas; Braitsch, Jay; Melchert, Elena; Cook, Trevor; Breed, William; 'jkstier@bpa.gov'; York, Michael; Freitas, Christopher
Cc: Kelliher, Joseph
Subject: Wednesday (3/21) NEP update

All,

As most of know, the NEP deadline has been moved up and the Task Force wants to finalize the report (all 10 chapters) and the policy options within the next two weeks. I'll be sending out a status report each day with any papers you might want/need to review. Please make sure that anyone who needs to see this e-mail does. Someone please send me Jeff Stier's email address (his mail is bouncing back).

Interagency group has met on Chapters 3, 6, 7, and 8 (DOE-lead chapters)

EE (Mary Beth and Michael York) are incorporating comments into chapter 6 - renewables (deadline Thursday COB)

FE (Jay) and NE (Trevor) working on chapter 8 - increasing supply (deadline Thursday COB)

Policy (me) working on chapter 7 - efficiency (deadline Thursday COB). I'll circulate when I get comments in.

Policy (me) working on chapter 3 comments - impacts on consumers and trying to get chapter integrated into chapter 5. I'll circulate when I get comments in.

Other papers:

Chapter 5 - economic impacts (Treasury). Met yesterday. No significant comments from any agency.

Chapter 9 - infrastructure. DOT keeps rescheduling their meeting to review. I am trying to locate the most recent copy and will want Paula and Chris and Jeff to take a look.

Chapter 10. State turns this around so fast, we can't keep up. Attached is a new version but I just sent them EIA and PO comments today so I am sure they are not incorporated.

Margot



03_20_01_NEPG
Study_R2.doc

502
Williams, Ronald L

From: Terry, Tracy
Sent: Thursday, February 15, 2001 9:22 AM
To: Anderson, Margot
Cc: Conti, John
Subject: RE: national energy strategy

b7E
Tracy

—Original Message—

From: Anderson, Margot
Sent: Thursday, February 15, 2001 9:11 AM
To: Terry, Tracy
Cc: Conti, John
Subject: RE: national energy strategy

Tracy,

John fingered you to help out on the NEP.

Margot

—Original Message—

From: Conti, John
Sent: Thursday, February 15, 2001 7:54 AM
To: Anderson, Margot
Subject: RE: national energy strategy

Margot,

On the macro section I nominate Tracy.
this area.

—Original Message—

From: Anderson, Margot
Sent: Wednesday, February 14, 2001 5:33 PM
To: Conti, John; Carrier, Paul; Friedrichs, Mark; Marlay, Robert; Newton, Bill; Breed, William
Subject: national energy strategy

All,

Please take a look. **Mark F.** and **John C.** will see their names.

Bill and John, I also want you to:

Thanks.

Margot

<< File: NEP organization.doc >> << File: Draft combo outline WH.doc >>

503

Williams, Ronald L

From: Scalingi, Paula
Sent: Thursday, February 15, 2001 11:34 AM
To: Freitas, Christopher; 'jkstier@bpa.gov'
Cc: Jim Peerenboom (E-mail); Kelliher, Joseph; Anderson, Margot
Subject: FW:

Christopher, Tony, Jeff,

Attached is the draft contribution from OCIP for the NEP per the instructions.

We will send these to you later this afternoon. We are looking forward to seeing your draft. Would you be available for a conference call at 4:00 p.m. with myself and Jim Peerenboom, head of the OCIP virtual analysis team, to discuss mutual comments?

Cheers,
Paula

-----Original Message-----

From: Peerenboom, James P. [mailto:jpeerenboom@anl.gov]
Sent: Thursday, February 15, 2001 10:53 AM
To: Scalingi, Paula
Subject:



Section F_021501.doc

Paula,

Ignore the previous version-I forgot to put "regional" in the first paragraph.

Jim
<<Section F_021501.doc>>

5360

305

Williams, Ronald L

From: Scalingi, Paula
Sent: Thursday, February 15, 2001 3:47 PM
To: Freitas, Christopher; Como, Anthony; Jim Peerenboom (E-mail); Anderson, Margot; Kelliher, Joseph; 'jkstier@bpa.gov'
Subject: FW: Natural Gas/Electric Power Interdependencies

All,

Attached is the interdependencies draft for the NEP section F. The conference call is scheduled for 4:00. The number is 202-287-1301.

Paula

—Original Message—

From: Peerenboom, James P. [mailto:jpeerenboom@anl.gov]
Sent: Thursday, February 15, 2001 2:30 PM
To: Scalingi, Paula
Subject: Natural Gas/Electric Power Interdependencies



EP_NG

Interdependencies.doc

Paula,

Attached is a short, high-level description of the interdependencies between natural gas and electric power.

Jim

<<EP_NG Interdependencies.doc>>

561

Williams, Ronald L

From: Breed, William
Sent: Thursday, February 15, 2001 4:09 PM
To: Anderson, Margot
Subject: RE: national energy strategy

Margot:

Hilary will pitch in on the macro part (and think big thoughts...); Fred will pitch in on the micro stuff (in part from his familiarity w/ EE programs). I assume that John has identified specific reviewers also.

Let us know when things come down the pike. Bill

—Original Message—

From: Anderson, Margot
Sent: Wednesday, February 14, 2001 5:33 PM
To: Conti, John; Carrier, Paul; Friedrichs, Mark; Marlay, Robert; Newton, Bill; Breed, William
Subject: national energy strategy

All,

bill

Bill and John, I also want you to:

Thanks,

Margot

<< File: NEP organization.doc >> << File: Draft combo outline WH.doc >>