The Environmental Impact of the Proposed National Energy Policy

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"The energy crisis." The phenomenon is so cleverly named that no one can argue its existence. But ask what the solution is and disagreement instantly arises. Look for the answer in the literature of environmental organizations to encounter an old growth stand's worth of accusatory rhetoric surrounding the Arctic National Wildlife Refuge. Look for the answer in the discourse of right-wing conservatives to sift through tautologies in search of well-hidden statements of substance and action. In response to the need for a solution to the crisis, the National Energy Policy Development Group (NEPD Group) appointed by President Bush submitted an energy policy proposal more comprehensive than any energy plan previously offered by a presidential administration. It attempts to outline the challenges facing American energy consumers while setting five specific energy goals and proposals for achieving them.

Some of these proposals reflect practical and intelligent options for meeting and reducing the American energy demand. However, a great many of the proposals are misguided examples of flawed logic with frightening long-term implications. The National Energy Plan gives undue credence to the ability of traditional energy supplies to overcome energy problems, thereby discounting environmentally sound practices such as conservation and the use of renewable energy sources as viable options.

There are many reasons why the Bush Administration felt the need to develop a strategic energy policy. In general terms, these issues are national security, the economy, poor energy infrastructure, outdated regulations, and environmental impacts.

The issue most often discussed, particularly after recent world events, is that of national security. At the most fundamental level, war is sometimes the result of a shortage of resources, and the United States relies on Middle Eastern countries with unstable political scenes for its energy resources. Beyond this, the United States is widely disliked by people of the Middle East. Islamic people of this area resent American policy in the Middle East and blame America's oil needs for putting them in "shaky economies run by corrupt leaders" (Banerjee, "Military Plans"). With an impending war between the United States and Iraq, US energy policy changes are yet more urgent and necessary.

At the same time, lower oil prices provide an economic lift for the United States. Similarly, almost every recession in the United States since the 1940s was preceded by a price spike in oil (Strategic Energy Policy 8). Data from a twenty-three year period "indicate a very strong relationship between per capita energy consumption and the per capita GDP" (Dunkerley 69). The economy and energy supply are issues so integrated that it is impossible to define a causal relationship between the current energy crisis and economic recession. Thus, while the United States battles both recession and a limited energy supply, an effective energy policy that addresses these problems would be timely.

Another issue of concern is the apparent inadequacies of the energy infrastructure. According to the assessment made by the NEPD Group, the refining capacity of energy plants fails to meet demand, natural gas pipelines have not expanded enough, electricity transmission is inadequate, and transportation networks for transmission are obsolete. The result is limited transmission, unreliable service,

rising costs, and potentially improper disposal of energy generation byproducts. Assuming all other factors go unchanged, the need for an updated infrastructure is clear.

Energy is currently produced, transferred, and distributed under an assortment of regulations. These regulations are inefficient and do not always meet their intended goal. Regulations can lead to supply disruptions, drastic and sudden price increases, a failure of energy prices to represent the actual cost to society, and the impediment of conservation efforts. As a result, energy regulations need to be assessed carefully and altered appropriately.

Beyond this, the current energy supply of the United States is largely comprised of energy sources with environmentally deleterious effects. Fossil fuels, on which the United States is almost wholly dependent, are a major culprit for global climate change -- change that could permanently alter the course of terrestrial evolution. Meanwhile nuclear energy, which comprises one fifth of the energy supplies of the United States, has already produced hundreds of thousands of cubic meters of high-level radioactive waste. This waste has the capacity to seep into and contaminate every aspect of the natural environment and remain fatally dangerous for more than 10,000 years -- much longer than the tenure of any civilization in history (EPA, “Radioactive Waste Disposal”). Any energy strategy, regardless of claims to being “long-term,” is unlikely to prevent such ramifications without first initiating sweeping changes to the status quo.

In light of these problems, the NEPD Group, headed by current cabinet members and the Vice President of the United States, submitted a National Energy Policy (NEP) Report to the President of the United States in May of 2001. This report includes myriad

recommendations for federal government initiatives with the goal of securing “reliable, affordable, and environmentally sound energy for America’s future” (2). The report outlines five fundamental objectives: to modernize conservation, to modernize the energy infrastructure, to increase energy supplies, to accelerate protection and improvement of the environment, and to increase the nation’s energy security.

To meet the first goal of modernized conservation, the report primarily suggests increasing the efficiency of various aspects of energy production. Proposed methods of implementation include: increasing funding for renewable energy supplies, increasing funding for efficiency research, creating tax credits for fuel efficient vehicles, labeling the efficiency of products, funding certain public transportation systems, and promoting combined heat and power technology.

The second objective established by the report is a modernized energy infrastructure. To realize this, the NEPD Group suggests identifying and resolving transmission “bottlenecks”, granting rights of way for electricity transmission lines, approving pipeline construction, promoting competition, ensuring pipeline safety, encouraging inter-regional cooperation, and expanding research and development for transmission reliability and superconductivity.

The third goal addressed by the NEPD Group is an increase in energy supplies -- particularly the acquisition of domestic energy resources. According to the assessment of the NEPD Group, accessible resources include methane from landfills, wind, biomass, geothermal, solar radiation, uranium and plutonium, hydropower, coal, as well as oil and gas from coastal zones and the region that greatly increased the controversy surrounding this report, the Arctic National Wildlife Refuge. The report includes a

number of methods for developing these various sources within the confines of other national energy policy goals including bid bonuses, tax incentives, and research funding.

Historically, trade-offs between the environment and energy production have been a necessary reality. Recognizing the severity of this issue, environmental protection and improvement was made the fourth target of the energy plan. The writers of the plan state a number of proposals with the mutually inclusive objectives of environmental protection and energy supply stability. These include market-based emission caps, exportation of US technology, and funding of land conservation through royalties from oil and gas exploration.

The final aim of the National Energy Plan is to enhance the nation's energy security. NEPD Group suggestions for preventing energy supply disruptions include providing funds for the Low Income Home Energy Assistance Program, maintaining the Strategic Petroleum Reserve, expanding investment in foreign energy supplies - particularly those of North American countries - and initiating or expanding energy discourse with the countries of the Middle East, South East Asia, Africa, South America, Western Asia, and the countries of the G-8.

It is clear that the NEPD Group felt it important to include environmental concerns in every component of the NEP. This suggests that the federal government considers the environment an issue of great concern for a nontrivial number of Americans. However, despite the fact that people are nearly ubiquitously aware of the environmental crisis, the energy policy proposal inadequately addresses major environmental concerns. If the National Energy Policy is enacted as it is suggested, it is

unlikely that the United States will see an “acceleration” of environmental “protection and improvement.” Rather, an already energy intensive society will see energy suppliers grow even more powerful. The National Energy Plan discounts conservation as part of a viable national energy policy particularly on the part of the consumer, overestimates the transportability of energy resources, encourages superfluous energy consumption, and insufficiently addresses global climate change and radioactive waste disposal.

The most fundamental problem with the energy policy proposal is its failure to acknowledge the simplest response to the energy crisis: conservation. Although, the plan gives “modernized conservation” the honored position under the first bullet point, it emphasizes conservation on the part of the supplier only. Conserving energy on the part of the consumer, meanwhile, is referred to as “sacrificing our standard of living” (NEP 10).

However, with the advent of energy efficient appliances, various weatherization tools, and the practice of simple stewardship, conservation can hardly be equated with “austerity” as Vice President Cheney touts. An independent task force on strategic energy policy makes the counter-assertion, “Supply-side responses alone will not suffice. To be effective and politically acceptable, solutions must also focus on demand-side efficiency” (5). Furthermore, a great many of the initiatives suggested by the energy plan involve expanding the role of the United States government. The proposed increase in government programs is undeniably counterintuitive. The decentralized, individualistic nature of conservation makes it the logical response for an administration opposed to “big government.”

The United States does have one of the highest standards of living in the world and certainly consumes more energy per capita than any other country in the world. According to the International Energy Agency (IEA), “both energy pricing and conservation measures seem to have had a significant effect in improving energy efficiencies” (qtd. in Dunkerley 136). However, a study performed by Resources for the Future indicates that, “the income level within a country is the major determinant of the level of energy consumption and that prices are of minor importance” (Dunkerley 72). Assuming the validity of these two studies, the large income of the United States translates to large levels of energy consumption. Even though massive energy consumption is part of America’s dominant social paradigm, these premises suggest that energy use can be tempered with conservation efforts even if energy prices remain low.

The favorite case study of the energy plan is that of California. Certainly at the time the proposal was submitted, California’s energy situation was poor. Insufficient supplies resulted in rolling blackouts, and in some cases prices rose over 1 000 percent. No one predicted that six months later California would find itself with an energy surplus or that California would become the favorite case study of those politically opposed to the Energy Plan. Deregulation, intended to incite competition, caused energy companies to take advantage of the situation by setting excessive prices and, according to the California Public Utilities Commission, even taking power supplies off-line to create artificial shortages (Egan). However, because of price caps, outside energy sources, and Governor Gray Davis’s conservation program, California has not experienced a blackout since May 2001 and can claim relatively stable energy prices.

The conservation program consisted of a thirty million dollar advertising campaign asking Californians to minimize their energy use and a program providing people who saved twenty percent in energy with a twenty percent discount on their energy bills. In yet another unexpected outcome, over one-third of California's residents choose to reduce their consumption by this amount (Egan). President Bush praised California's successful conservation campaign -- one that evidently disproves Cheney's now famous quote, "The aim here is efficiency, not austerity. Conservation may be a sign of personal virtue, but it is not a sufficient basis for a sound, comprehensive energy policy" ("Quotation of the Day"). Individual conservation efforts can prove to be a defining factor in energy policy.

After conservation, the Energy Plan addresses infrastructure shortcomings. Energy transmission problems certainly exist, particularly in the West and Northeast. The NEPD Group views the solution to this as more and better methods of energy transfer. However, the report omits substantive discussion of the economic and environmental costs of energy transmission. Transporting energy resources is, in itself, an energy intensive process laced with the dangers of spills, leaks, and ecosystem invasion. In the energy plan's earnest focus on interstate cooperation, it diminishes the viability of local energy generation. The introduction of local energy producers into the market would eliminate expensive transportation costs, drive down overall costs, and in most cases force the derivation of power from renewable sources. Furthermore, the energy plan could encourage completely decentralized energy sources. Personal windmills are increasingly available for homeowners and solar panels are increasingly affordable making individual power generation easier to achieve. Were local energy

generation systems to become an ubiquitous reality, the currently inadequate infrastructure would become excessive infrastructure.

The energy plan at once advocates environmental protection and the exploitation of environmentally damaging energy sources. The plan's authors ironically state, "we do not accept the false choice between environmental protection and energy production" directly following a list of methods to increase energy supplies that emphasizes oil, gas, coal, and nuclear sources (13). The plan claims to be environmentally sound, but the recommendations fall short of the rhetoric.

The heavy emphasis on fossil fuels is dismissive of global climate change, contradicting assertions made elsewhere in the report that "the United States recognizes the seriousness of this global issue" (NEP 53). As fossil fuels are converted into a usable energy supply, they emit greenhouse gases. The Intergovernmental Panel on Climate Change confirmed that increased atmospheric concentrations of these substances are responsible for climate change. Thus it is contradictory for the NEPD Group to claim that it is protecting the environment while supporting an increase in the supply of fossil fuels. Analyzing the advocacy of supply-side efficiency over demand-side conservation further brings this assertion into question. If current energy use trends continue, OECD carbon dioxide emissions are projected to be over 13,400 million tons in 2010 - almost 3,800 million tons more than suggested by the Kyoto Protocol. (World Energy Outlook 54). To meet Kyoto standards, the primary sources for reductions in carbon dioxide emissions in the OECD countries "must be energy saving in final energy consumption and the substitution of non-fossil for coal-fired electricity generation" (55).

The proposal to drill in the Arctic National Wildlife Refuge (ANWR) instigated a great number of debates -- labor unions versus environmentalists, Republicans versus Democrats, sport utility vehicles versus caribou. Unlike other aspects of the National Energy Plan, the media and the public have followed this issue closely. A bill that would open the Arctic National Wildlife Refuge for oil exploration failed to pass in the Senate last April. However, the presidential administration, the republican-ruled Senate, and Alaskan labor lobbyists are ensuring that the issue is not dead. Home to abundant biodiversity and indigenous people, the refuge is the largest arctic region yet untouched by capitalistic society. Extracting petroleum from the refuge would cause permanent environmental damage to an area pervasively recognized as a “national treasure.” The average estimate of the United States Geological Survey for the quantity of oil available for extraction is only 7.7 billion barrels (US Geological Survey 4). When compared with the fact the United States imports 10 million barrels of oil per day, it is apparent that ANWR would not significantly offset the United States’ dependence on foreign oil (NEP 25). Even the most generous estimates credit the United States with no more than three percent of the world’s known oil reserves. As long as America is dependent on oil, it will be dependent on importation.

Furthermore, drilling in ANWR would set a dangerous precedent. Until now the only drilling that occurs in wildlife refuges is performed by companies on adjacent land which extract from beneath the refuge, by companies that were already present before the designation of “wildlife refuge” was established, or by companies that own mineral rights in the refuge (Wald). In this respect, extracting oil from ANWR could open the door to corporate destruction of other natural areas. Given these observations, the

certainty of the negative effects of drilling in ANWR outweighs any benefits that may or may not result. This could hardly be considered acceleration of environmental protection and improvement. If the National Energy Policy is to be “environmentally sound” as the plan proposes, it will exclude drilling in the Arctic National Wildlife Refuge.

The NEPD Group strongly advocates the use of nuclear power - yet another option for increasing energy supplies that jeopardizes the well-being of the environment. While it is true that atomic energy does not emit greenhouse gases, the NEPD Group uses this idea to sugarcoat the environmental effects of nuclear energy production. The report cites the low number of nuclear plant accidents as evidence for the safety of these plants. However, the dangers of high-level radioactive waste storage are conspicuously missing from the report. The byproduct of spent reactor fuel reprocessing is an extremely hot, acidic, and radioactive liquid waste (EPA, “Radioactive Waste Disposal”). Since there is no known way to reduce its dangerous properties, radioactive waste is placed in temporary storage facilities that are frequently little more than metal canisters within a concrete box. Because it holds its hazardous properties in excess of 10 000 years, isolation of radioactive wastes from the natural environment proves difficult -- particularly when the waste is a highly corrosive liquid.

The National Energy Plan offers two “solutions” to this dilemma. The first is to fund research in the unreasonable hope that technology will be able to temper the hazardous properties of spent reactor fuel. The second is to fund research of mined geologic disposal with the goal of isolating the waste until radioactive decay has rendered it safe and the people of the world recall the era of geologic repository construction the way we think of the advent of agriculture. The NEP’s authors fell prey

to the myth that science can solve major ecological problems, but a reliance on technological “quick-fixes” is not a comprehensive, long-term strategy.

While we lack adequate nuclear technology, we have a host of available renewable technologies. It would follow then, that the solution to the energy crisis would come from a combination of reduced demand and an increased reliance on renewable energy sources. The NEP states that the fundamental barrier to implementation of renewable energy sources is cost. However if subsidies for renewable energy sources replaced “brown-subsidies” on heavily polluting, grandfathered energy plants that are exempt from important environmental regulations, the cost of renewables would certainly be less burdensome. In late 2001, the House of Representatives approved an energy bill providing thirty-three billion dollars in tax breaks for traditional energy producers and only 5.9 billion dollars for conservation efforts. The imbalance is a prime example of the “environmental policy paradox.” Americans lawmakers are well aware of the environmental importance of clean energy but fail to support it because of pressure from corporate energy suppliers and constituent desires for cheap energy.

A further problem is that there is little public discourse within the United States about the suggested energy strategies. With the exception of the Arctic National Wildlife Refuge, there is minimal public debate over any of the NEPD Group proposals. The dissemination of knowledge about the energy plan has been poor -- perhaps the product of American apathy, perhaps the product of lawmakers’ desire not to be held accountable for environmentally deleterious actions. In any case, constructive public debates ought to be encouraged.

Clearly the United States has problems with its current energy supply. It is easy to sit behind environmental science books and play the game of "should" with expansive changes to the current energy strategy. It is much harder to see such changes implemented. Even so, a set of comprehensive, long-term national energy policy proposals is the first step to securing a stable, inexpensive, and environmentally safe energy supply. The means suggested by the current administration to produce this end, while timely and well-intended, are unlikely to produce the projected consequences. A greater emphasis on conservation, renewable energy supplies, and cooperation are required if we are to secure "reliable, affordable, and environmentally sound energy for America's future."

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