Tripodi, Cathy

From: Kelliher, Joseph
Sent: Tuesday, July 03, 2001 7:09 PM
To: Tripodi, Cathy
Subject: FW: energy tax proposals

Predecisional: draft NEP recommendations

-----Original Message-----
From: Buddy Garland
Sent: Tuesday, April 17, 2001 11:08 AM
To: Kelliher, Joseph
Cc: Zimmerman, MaryBeth; Baldwin, Sam; Abe.Haspel@ee.doe.gov@DOE%HQ-NOTES; Sullivan, John
Subject: RE: energy tax proposals

Joe,

I will contact you when I have some answers.

Thanks,

Buddy

Joseph Kelliher@HQMAIL on 04/17/2001 08:41:02 AM
To: Buddy Garland/EE/DOE@DOE@HQMAIL
cc: Abe Haspel/EE/DOE@DOE@HQMAIL, John Sullivan/EE/DOE@DOE@HQMAIL
Subject: RE: energy tax proposals

-----Original Message-----
From: Buddy Garland
Normally, we have a team of about 7 employees in our office and ~20 people in our national laboratory and university community that we would include in a discussion and analysis of this nature. We will try to assemble these people next week and look into the possibilities for offering some tax policies to the Vice President's team.

Thank you,

Buddy Garland
Dear Senator Bond:

Please urge Vice President Cheney to turn over records of participants who helped formulate the Bush Administration’s energy policy. The GAO and the American public have a right to know this information.

I suspect that there may be serious corruption going on here and ask for an investigation by your committee. The American public has a right to know what advisers or energy moguls participated in forming the nation’s energy policy recommendations. If they were outside parties the policy may well be illegal under the Federal Advisory Committee Act. If Mr. Cheney is not forthcoming with the roster of participants I ask that you pursue action to release this information. This information is even more important and disturbing in light of the recent Enron debacle and it’s ties to Karl Rove in the administration, and President Bush’s and Vice President Cheney’s ties to big oil.

I was disappointed to learn of the selection of Camden Toohey as a special adviser to the Department of the Interior. Mr. Toohey is the director of the pro-oil development group Arctic Power and as such is extremely biased in his viewpoint. I am appalled at the thought of the oil industry conducting the Department of Interior as an enterprise zone.

The selection of John D. Graham as director of the Office of Information and Regulatory Affairs in the office of Management and Budget and the selection of Donald R. Schregardus as Assistant EPA Administrator for Enforcement and Compliance Assurance lead me to believe that many Bush appointees are selected solely on the basis of their political contributions and industry bias without concern for the well-being of the nation.

I ask your support for a full investigation into these participants and appointments. In accordance with the core values of accountability, integrity and reliability this information must be made available to the American public.

Sincerely,

[Signature]

10817

DOE016-0569

Obtained and made public by the Natural Resources Defense Council, March/April 2002
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2001-003217 2/5 A 9:58

From: Crackle, Clint [Clint.Crackle@fema.gov]
Sent: Thursday, February 01, 2001 10:09 AM
To: 'vicepresident(a)whitehouse.gov'
Cc: Secretary, The; 'president(a)whitehouse.gov'; 'speaker(a)mail.house.gov'; 'senatorlott(a)lott.senate.gov'; 'dick(a)durbin.senate.gov'; 'Senator(u)Fitzgerald(a)fitzgerald.senate.gov'; 'governor(a)state.ill.us'; 'governor(a)governor.ca.gov'; 'Governor.Taft(a)tas.state.oh.us'; 'governor(a)state.mn.us'; 'jnoor(a)icc.state.ill.us'; 'mnorris(a)dpsv.state.mn.us'; 'lpai(e)cgw.org'; 'codaire(a)dpsv.state.oh.us'; 'hcrowley(a)powercom.net'; 'jfc(a)net.org'
Subject: FW: FW: Energy Task Force

Dear Mr. Vice President:

As a follow-up to my previous request to serve on the newly created energy task force, I am forwarding the comments of the Nuclear Waste Strategy Coalition's Federal Intervention Legislative Liaison regarding my request to serve on the task force. I am truly honored and blessed to receive such recognition and words of encouragement from a noble and worthy organization that is truly committed to serving the interests of our nation's nuclear utility ratepayers.

If I may be of any assistance to you and the task force, please don't hesitate to contact me. Thank you again for any consideration you may give to my request.

Clinton E. Crackle

---Original Message---
From: Martez Norris [mailto:Martez.Norris@state.mn.us]
Sent: Wednesday, January 31, 2001 2:06 PM
To: Clint.Crackle@fema.gov
Subject: Re: FW: Energy Task Force

<<Martez Norris.vcf>> Good luck with the Task Force position. We sure need a friend. The Coalition is planning to meet with members of the Task Force soon. Good luck, Martez

Martez Norris
Federal Intervention Legislative Liaison
Minnesota Department of Commerce
Nuclear Waste Strategy Coalition
85-7th Place East, Suite 500
St. Paul, MN 55101-2198
Tel: 651.296.0417 Fax: 651.296.5819
Email address: martez.norris@state.mn.us

>>> "Crackle, Clint" <Clint.Crackle@fema.gov> 01/29 2:00 PM >>>
Senator Fitzgerald:
For your information.

---Original Message---
From: Crackle, Clint
Sent: Monday, January 29, 2001 12:54 PM
To: 'vicepresident(a)whitehouse.gov'
Subject: Energy Task Force
Dear Mr. Vice President:
I have just learned of President Bush's decision to create a Federal energy task force. I would be honored to have the opportunity to assist you on the task force if you wish to utilize my services. I have attached a brief, one-page resume for your information. Please let me know if I can be of service.

Thank you for any consideration you may give to my request.
Clinton E. Crackel
Dear Secretary Abraham,

I wanted to share with you some thoughts on a national energy strategy that we recently sent to the Vice President. I believe this information is critical as you put together your 2002 budget.

Joe Skaar
2nd District, New Mexico
The Honorable Richard Cheney  
Vice President of the United States  
The White House  
Washington, D.C. 20500

Dear Mr. Vice President Cheney:

As you assume your new responsibilities as head of the national energy taskforce, we wanted to take this opportunity to share with you some of our thoughts on the need for a national energy strategy. These ideas are based on our long history of funding energy research through the Interior appropriations bill. As current and past chairmen of the House Interior Appropriations Subcommittee and longstanding members of that committee prior to our chairmanships, we have seen many attempts at formulating a national energy policy by previous administrations.

Our views on what needs to be done and why past strategies have failed are outlined in the enclosed documents. We stand ready to assist you in any way we can in addressing this important issue, which is critical to the economic health of this nation and the worldwide well being of the environment.

Sincerely,

Ralph Regula  
Chairman  
Subcommittee on Interior and Related Agencies

Joe Skeen  
Chairman  
Subcommittee on Interior and Related Agencies

DEQ016-0574

Obtained and made public by the Natural Resources Defense Council, March/April 2002
Energy and the Lack of a Comprehensive National Strategy

The current problems with electricity deregulation in California illustrate several problems with the Federal approach to addressing the energy situation in this country and worldwide. The biggest problem is that the country is dependent on fossil fuels—coal oil and natural gas—to supply the vast majority of our energy needs now and for the foreseeable future. Instead of focusing efforts on how to use these fossil fuels more efficiently and more cleanly, the majority of energy research has been focused on finding “magic bullets” that will substitute for fossil fuels.

Renewable and alternative fuels do need to be developed, and research should be continued in those areas. However, these alternatives are not capable of replacing fossil fuels to any great extent over the next couple of decades. Many in the environmental community (and in government) have oversold the promise of renewables and alternative fuels. Meanwhile, the energy infrastructure in this country has not kept pace with demand and we have created disincentives to improving and siting new technologies that would improve the efficiency and cleanliness of fossil fuels.

A comprehensive national energy strategy needs to be developed that acknowledges the importance of improving fossil fuel technology at the same time as continuing research on renewable energy and alternative fuels. Also, there needs to be an immediate, independent objective review of “what happened” in electricity deregulation in California.

Federal research is only a part of the answer to the energy situation. We have invested nearly $25 billion in energy conservation and fossil energy research through the Interior appropriations bill alone since the founding of the Department of Energy in 1977. Have we gotten $25 billion worth of results? We need a framework for where we invest research funding in the future and that framework should be based on the energy needs of the country and the relative contribution of the various energy sources.

There are several initiatives that have been funded under the Interior bill that should be continued and expanded. They include natural gas infrastructure improvements, technology improvements to extend the life and productivity of existing oil fields, fuel cell research for electric power generation and for transportation applications in cars and trucks, methane...
hydrates research, and a new power plant improvement initiative for coal-fired power plants.

The power plant improvement initiative recognizes that more than half of our electricity is generated by coal and will continue to be so for decades to come. As the U.S. electric power industry transitions to a new and competitive business structure, the demands on existing coal-fired power plants are changing. These plants must achieve greater efficiency and reduce carbon dioxide and other emissions. Advanced technologies need to be developed and applied to existing and new power plants.

Whatever energy strategy is developed needs to recognize that the Federal government can't "do it all." We need to work cooperatively with industry so that Federal research makes sense and is a joint government/industry effort. The energy strategy also needs to recognize that most of the major energy breakthroughs that have been achieved have come from industrial research efforts and from small entrepreneurs in the private sector and not from Federal research investments.

Conservation efforts need to be continued but conservation is no replacement for aging infrastructure; nor can it adequately address ever-increasing demand. The basis for a national energy policy that will work needs to be a realistic view of the current and future market share for the various fossil fuels and for renewable and alternative fuels. All the various energy strategies that have been put forth to date have failed because they have been based on the flawed premise that conservation and renewable and alternative fuels can substantially displace our reliance on fossil fuels. That is a myth that needs to be debunked. Conservation and renewable and alternative fuels research need to be appropriately integrated with fossil fuels research and improved technology.

Attached are some remarks that Congressman Ralph Regula recently made on the House floor on this issue. The data are compelling. Now is the time to move forward boldly with a balanced, rational, national energy policy.
The Need for a National Energy Policy
Remarks by Congressman Ralph Regula, OH
January 2001

The current situation with rising electric power prices and power outages on the West Coast comes on the heels of the price spikes and tight supply of crude oil that we’ve been experiencing over the past year and the resultant large increases in the prices for natural gas, heating oil and gasoline. I challenge each member of this chamber to join with me in working with the next Administration to develop and implement a reasoned and balanced National Energy Policy in the 107th Congress.

We import 52% of our petroleum today and by 2020 that number is projected to increase to 64%. Demand keeps going up and supply is, at best, remaining level. Refinery capacity in this country is pretty much “maxed out” and no new refineries appear likely in the current regulatory climate. We need to address this problem now.

New oil and gas pipelines and new electric power generating capacity also need to be put on a “fast track” to keep pace with demand. We need to remove disincentives to siting new and improved “clean energy” technology that will reduce energy use and lower harmful emissions. At the same time, we need to continue to develop alternative sources of energy such as wind, solar and geothermal energy.

About 85% of U.S. energy use today comes from traditional fuel sources – coal, oil, natural gas – and that market share is expected to reach nearly 90% by 2020 as nuclear power generation declines. Alternative fuel sources provide less than 7 percent of the total energy used in this country and that percentage is not expected to increase over the next 20 years. As energy consumption in this country increases, the use of alternative fuels will increase but so will the use of traditional fuel sources.

Some in this chamber have advocated eliminating all research on traditional fuel sources. These same individuals also advocate huge increases in alternative energy research. We need to have reasonable funding increases in traditional energy research and we need to bring greater focus to our research on alternative energy so that we pursue the most promising alternatives aggressively and terminate or scale back other alternative fuels research.
Our recent history in this area has not been good. We have under funded traditional energy fuels research and this under funding has contributed to our current short supply and escalating price situation. At the same time, we have continued to increase and widely disperse alternative fuels research into literally thousands of different projects. Many of these alternatives have proved to be unrealistic, yet we continue to fund them.

We need to work on “hybrid” technology that combines the use of traditional fuel sources with alternative sources of energy. This “combination” technology shows great promise for many applications in the short term. A couple of examples are: fuel cells that can use natural gas or propane as a fuel source to supply the power needs of residential and small commercial buildings; and a combination gasoline and electric power or diesel and electric power hybrid system for cars and trucks that can achieve substantially greater miles per gallon than existing vehicles.

Unfortunately, at times like these, the answers many folks turn to are “band aid fixes” to address regional problems like electric power shortages in the West and heating oil shortages in the Northeast. Once the crisis passes, memories fade and we are left, yet again, with no far-reaching, longer-term solution to the U.S. energy situation.

There are many opportunities for the Department of Energy to work with the Environmental Protection Agency in regulatory areas that directly affect energy production and use. DOE does work cooperatively with EPA now but much more needs to be done to address inconsistencies in programs in the two agencies.

In particular, the two agencies should collaborate on a “Four Pollutant Strategy” to address emissions from existing electric power plants of SO2, NOx, mercury and CO2. In addition, EPA’s proposed “Air-Water Interface Work Plan” should be coordinated closely with DOE in assessing the potential impact of emissions from the electric utility sector on water quality and in determining the need for further regulation.

EPA is also developing policies that would marginally reduce NOx and air toxics from clean burning natural gas power plants. Unfortunately, these rules may raise the operational costs of these plants so much that there could be an incentive to switch to other fuels. We need to make sure that
well-intentioned efforts to reduce emissions don’t raise power costs for clean burning fuels while encouraging shifts to fuels with greater emissions. DOE needs to work very closely with EPA on this policy.

EPA also needs to work closely with DOE in formulating cooling water intake regulations for existing electric power generation facilities and for existing petroleum refineries. Existing plants have fewer compliance options and much greater mitigation costs than new plants. The economic impact of an overly stringent rule for existing sources could trigger another energy crisis in this country.

In 1999, U.S. consumers used 4 times as much gasoline as we did 50 years ago. We consume over 19 million barrels of petroleum a day in this country, about 59 billion cubic feet of natural gas and nearly 3 million short tons of coal. The U.S. has only 4.5% of the world’s population but we account for 26% of worldwide petroleum consumption, 26% of total natural gas use and 21% of total coal use. We need to use technology to help us get our jobs done and retain our lifestyle while using less energy. Many of these technologies are available now and many more are on the horizon. The consumer needs to know how to get access to them and, with today’s Internet society, there is no excuse for not getting the word out.

We leave 2 barrels of oil in the ground for every barrel we produce. We can do better and we need to support research that will help improve domestic production of oil. We have more coal in this country than the rest of the world has recoverable oil. Coal is an excellent energy source and we should be supporting research that will ultimately provide us with zero emissions coal-fired power plants.

We can’t ignore the international market either. Our energy strategy needs to acknowledge the importance of the international situation because issues like global warming and carbon sequestration cannot be addressed in isolation by U.S. policy.

One-third of the world population – 2 billion people – lack access to electric power. Current electric power capacity will have to be tripled over the next 50 years to meet global demand. The worldwide market for new power generation equipment is expected to be $2 trillion a decade for at least the next 5 decades.
China and India are going to be primarily dependent on coal. China alone plans to build 8 to 10 power plants a year over the next 20 years – 75% of which will burn coal. If you are really concerned about the environment, this is where the rubber meets the road. We need clean efficient technology for clean power generation. We also need U.S. technology that will compete successfully in the international marketplace if we are to be a major player in cleaning up the environment.

We need a National Energy Policy that does not pit traditional fuels against alternatives fuel sources. We need to look at the whole range of technologies. That is the message we should deliver in the 107th Congress.
February 16, 2001

The Honorable Richard Cheney, Vice President
The White House
1600 Pennsylvania Avenue, N.W.
Washington, DC 20500

Dear Vice President Cheney:

We applaud your efforts as you begin a comprehensive review of U.S. energy policy. This critical initiative is long overdue, and it is particularly relevant today as the California energy crisis illustrates the deficiencies in regional and national energy policy and planning. Additionally, as the threat of global climate change is becoming widely acknowledged in the U.S., there is a growing understanding that a responsible national energy policy includes a global climate change mitigation strategy that can be environmentally effective and economically advantageous.

We are concerned that the current crisis mentality pervading the discussions of energy issues in the country has fostered an ill-founded rush for “quick fix” solutions that, while politically expedient, will ultimately do the country more harm than good. It is critical to examine all energy options. The potential for renewable energy technologies and energy efficiency to have a significant positive impact on our energy future is such an example of an opportunity that demands far greater examination and commitment to implementation than we have seen to date.

In the last decade the case for renewable energy has become compelling economically, socially, and environmentally. For many years renewables were seen as environmentally and socially attractive options that at best occupied niche markets due to barriers of cost and available infrastructure. That situation has dramatically changed. Renewable energy resources and technologies—notably solar, wind, small-scale hydro, and biomass based energy, as well as advanced energy conversion devices such as fuel cells—have undergone a revolution in technological innovation, cost improvements, and in our understanding and analysis of appropriate applications. There are now a number of energy sources, conversion technologies, and applications, where renewable energy options are either equal,
or better, in price, and equal, or better, in services provided than are the prevailing coal, oil, and gas technologies. For example, in a growing number of settings in industrialized nations, wind energy is now the least cost option across all energy technologies with the added benefits of being quick to install and bring on-line, and modular. In fact, some farmers in the Midwest can generate more income per hectare from the electricity generated by a wind turbine on their land than from their crop or ranching proceeds. Furthermore, photovoltaic panels and solar hot water heaters placed on buildings and houses across America could help reduce consumers' energy costs, produce a healthier living environment, and increase our energy supply while stabilizing our energy demand.

California's energy crisis has recently caught the national attention and raised fundamental questions about regional and national energy strategies. Rising demand suggests the need for new energy supplies, and certainly some new energy capacity is needed. However, there is a wide range of options for achieving supply and demand balance, and some of these options are not being given adequate attention. Governor Davis in California is now emphasizing policies that put the state into the position of brokering power purchases. Not only is this unlikely to be economically efficient, it fails to address the underlying problems of market manipulation and under-investment in capacity expansion of new, clean, technology development and installation. We believe that statewide, public sector investment in renewable energy generation, combined with increased municipal control of electricity production and retail sales, would offer a better and more meaningful long-term solution to the problems that electricity deregulation has raised.

In general, the absence of past state and federal leadership has meant that we have seen too few incentives for energy conservation and efficiency measures, little attention to appropriate power plant siting issues, and lack of long-term concern for transmission and distribution bottlenecks. At the national level drilling for oil in Alaska's Arctic National Wildlife Refuge is one step that could be taken to increase oil supplies. Yet, it would have a negligible affect on electricity production, and would not significantly reduce oil prices, improve energy security, or alleviate the trade deficit. Any oil and gas found will be trivial in comparison with global production and long-term U.S. consumption. This combined with the economic and environmental costs of such a proposal make disrupting the Arctic Refuge an unnecessary step, and illustrate a lack of integrated energy planning.

We firmly believe that the ultimate solutions to meeting our nation's energy needs must be based on private sector investment, bolstered by well-targeted government support such as tax incentives for emerging energy technologies and R&D. This must be coupled with policies that open markets to new generating capacity, rather than through federal subsidies for programs to increase energy supply using already mature technologies. This latter strategy would only generate near-term and incremental paybacks, while doing little to promote energy security or advance social and environmental goals. Instead, we now have the opportunity to build a sustainable future by engaging and stimulating the tremendous innovative and entrepreneurial capacity of the U.S. private sector. To accomplish this, we must develop policies that guarantee a stable and predictable economic environment for advancing clean energy technologies. This can be further bolstered by market incentives to reward actions that advance the public good. The Federal Energy Task Force has the opportunity to clarify federal policies, build a sustainable energy research base, encourage state and regional initiatives, and build dynamic markets and industries focused on clean energy options. With these thoughts in mind, we present several options that address both the short-term need to increase
energy supply and the long-term goal to have a sustainable, economic and environmentally sound U.S. energy policy.

- Increase federal R&D funding for renewable energy and energy efficiency technologies. To date, federal investment in renewable energy and energy efficient technologies has been sparse and erratic, with each year producing an appropriator battle that is often lost. The resulting financial and policy uncertainty discourages effective energy technology development and deployment in the marketplace. With energy now a clear national priority, funding for the U.S. Department of Energy's Energy Efficiency and Renewable Energy Program must be substantially and systematically increased. The realization that R&D funding provides a critical driver to economic growth resulted in important commitments, particularly in the life sciences, to doubling R&D funding in five years. The same return on investment exists in the energy sector, but it has not been translated into similarly increased R&D funding for new renewable and energy efficiency technologies. If the U.S. expects to be a world leader in this industry, as it is in the biomedical and high-tech sectors, such investments in renewable energy and energy efficiency are essential. (See Appendix, Note 1)

- Provide tax credits in addition to tax cuts for companies developing and using renewable energy and energy efficiency technologies. The R&D tax credit has proven remarkably effective and popular with private industry, so much so that there is a strong consensus in both Congress and the Administration to make this credit permanent. Clean energy must be a national priority, and given the importance of private sector R&D in commercializing new technologies, an additional tax incentive for R&D investment in renewable and energy efficiency technologies is exactly the type of well-targeted federal policy that is needed. Furthermore, tax incentives directed toward those who use the technologies would provide the 'demand pull' to accelerate the technology transfer process and rate of market development. The U.S. has largely lost its position as the global leader in energy innovation resulting in the loss of jobs and earning potential for U.S. companies precisely at the time when the international market for clean energy technologies is booming. Our domestic industries as well as the global energy economy would both benefit directly from a renewed commitment to U.S. clean energy leadership.

- Institute improved efficiency standards for residential and commercial water heating and space heating and cooling, and motors and appliances. Significant advances in heating and cooling system efficiency, and for motors and many appliances, have been made, but more improvements are technologically possible and economically feasible. A clear federal statement of desired improvements in system efficiency is needed to remove uncertainty and reduce the economic costs of implementing these changes. If such a federal mandate existed then efficiency standards for heating and cooling, and for motors and appliances would begin to gradually increase, helping to expand the market share of existing high efficiency systems, as well as spurring a wealth of further improvements. (See Appendix, Note 2)

- A federal renewable portfolio standard (RPS) to help build renewable energy markets. The RPS is a renewable energy content standard, akin to efficiency standards for vehicles and appliances that have proven successful in the past. A gradually increasing RPS is an economic way of ensuring that a growing proportion of electricity sales are provided by renewable energy, and is designed to integrate renewables into the marketplace in the most cost-effective fashion.
In this manner, the market picks the winning and losing technologies and projects, not administrators. We recommend a 20 – 25 percent renewable energy component within ten to fifteen years, using market dynamics to stimulate innovation through an active trading program of renewable energy credits. (See Appendix, Note 3)

- **Federal standards for net metering of distributed small-scale energy generation.** Net metering allows customers to interconnect and feed surplus power back into the grid during periods when generation exceeds the customer's own use. Such a system makes it easier and more affordable for customers to generate their own power from renewable energy sources or other distributed generation technologies. The use of net metering benefits customers, utilities, and independent power providers, and is particularly important for intermittent renewable sources, such as solar and small wind machines, which generate electricity only when the resource is available. A uniform federal standard is needed to replace the confusing and disparate array of state net metering programs currently in existence. (See Appendix, Note 4)

- **Form a National Public Benefits Fund based on revenue collected from a national, competitively neutral wires charge.** Such a fund could match state funds to assist in continuing or expanding energy efficiency, low-income services, the deployment of renewables, research and development, and similar public purpose programs the costs of which have traditionally been incorporated into electricity rates by regulated utilities. As the utilities have moved toward deregulation such public benefit funds have been disappearing.

- **Improve federal standards for vehicle fuel economy.** New hybrid vehicle technologies are beginning to enter the marketplace, offering significant improvements in vehicle fuel economy at modest incremental vehicle costs. Looking beyond the initial wave of gasoline hybrid vehicles, fuel cell vehicles are currently under active development by all of the large automakers and promise even higher efficiencies and still lower emission levels. The improvements in fuel economy that these new vehicle types offer would help to slow growth in petroleum demand, reducing our oil import dependency and trade deficit. While the Partnership for a New Generation of Vehicles helped to generate some vehicle technology advances, an increase in the Corporate Average Fuel Economy (CAFE) standard is required to provide an incentive for companies to bring these new vehicles rapidly to market. The potential for future hybrid and fuel cell vehicles to achieve over 100 miles per gallon is believed to be both technically and economically viable in the near-term, and needs only clear federal guidelines and support to move from planning to reality. (See Appendix, Note 5)

- **Integrate domestic energy and environmental planning with U.S. global leadership.** The need for leadership on the global climate issue has become particularly apparent with the lack of international cooperation at the recent climate meeting in The Hague. Past domestic political opposition to U.S. leadership in this area was based on outdated views of the science and economics of climate change. It is now widely understood that the costs of inaction on global warming can be catastrophic, while the benefits of actions to reduce the environmental impacts of energy use through new innovation, developing clean energy industries, and improving domestic air quality and health can be substantial. This represents the classic 'win-win' scenario. Significant action on climate change mitigation now appears unlikely unless the U.S. takes on a significant leadership role. (See Appendix, Note 6)
If we hope to enjoy the type of prosperity in the coming century as we have in the past the work of the Task Force on Energy in formulating a new national energy policy must be carried out with carefull consideration. We commend you for this auspicious undertaking and would be happy to elaborate further on any of the points raised above. Thank you for the opportunity to weigh in at this critical juncture in our country's history.

Sincerely,

Daniel M. Kammen
Professor Daniel M. Kammen, Director
Renewable and Appropriate Energy Laboratory
Email: dkammen@socrates.berkeley.edu

Antonia Herzog
Dr. Antonia V. Herzog
University of California President's Postdoctoral Fellow
Email: ahertzog@socrates.berkeley.edu

Timothy E. Lipman
Dr. Timothy E. Lipman
Postdoctoral Fellow, RAEL
Email: telipman@socrates.berkeley.edu

Cc:
Spencer Abraham, Secretary of Energy
Governor Gray Davis, Governor of California
Rosina Bierbaum, Acting Director, Office of Science and Technology Policy
Senator Frank H. Murkowski, Chairman, Senate Committee on Energy and Natural Resources
Senator Jeff Bingaman, Ranking Member, Senate Committee on Energy and Natural Resources
Hon. W.J. "Billy" Tauzin, Chairman House, Committee on Energy and Commerce
Hon. John D. Dingell, Ranking Member House, Committee on Energy and Commerce
Appendix: Supporting Materials and References

Many of the publications listed below are available online at the Renewable and Appropriate Energy Laboratory's (RAEL) Internet site. The Publications Page is: http://socrates.berkeley.edu/~rael/papers.html

Note 1: Federal R&D funding for renewable energy and energy efficiency technologies

Federal funding and leadership for renewable energy and energy efficiency projects has resulted in a small number of notable successes, such as the Energy Star and Green Lights Programs that has now been emulated in a number of countries. Despite these achievements, funding in this area has been both scant, and so uneven that private sector involvement has been actually discouraged. A combination of a federal program for steadily increasing funding and active political leadership would transform the clean energy sector from a good idea to a pillar of the new economy. In particular, promising technologies such as fuel cells deserve special attention. Fuel cell development is attracting significant public and private funding and offers the promise of being a keystone technology for the ultimate transition from natural gas, petroleum, and coal energy to a renewable and hydrogen-based energy economy.


President's Committee of Advisors on Science and Technology (PCAST) (1997) Federal Energy Research and Development for the Challenges of the Twenty-First Century (Washington, D.C.: Energy Research and Development Panel, President's Committee of Advisors on Science and Technology), November.

A second, and related issue is the structure of the Department of Energy itself. We have understood, even crippled, the ability of the Department of Energy to investigate, promote and champion innovation in the energy sector by focusing much of its activities on the clean-up of the legacy of nuclear energy research and waste. While this is an important mission, it dominates the resources of the Department of Energy and prevents the focus from moving to current and future energy needs and opportunities. A separation of these functions is in order.
Note 2: Efficiency standards for residential and commercial water heating and space heating and cooling, and motors and appliances.

A confluence of technical advances and economic and policy mechanisms now exists that could be utilized to dramatically reduce domestic, commercial and industrial energy needs. Federal leadership and partnership programs with state and regional organizations could produce dramatic improvements and cost reductions.


Note 3: A federal Renewable Portfolio Standard

All federal RPS proposals should use tradable renewable energy credits for compliance. Renewable credit trading is analogous to the sulfur allowance trading system established in the Clean Air Act. Like emissions trading, it is designed to be administratively simple and to increase flexibility and decrease the cost of compliance with the standard. Electricity suppliers can generate renewable electricity themselves, purchase renewable electricity and credits from generators, or buy credits in a secondary trading market.

The RPS is the surest mechanism for securing the public benefits of renewables and for reducing their cost to enable them to become more competitive. It is a market mechanism, setting a uniform standard and allowing companies to determine the best way to meet it. The RPS will reduce renewable energy costs by:

- Providing a revenue stream that will enable manufacturers and developers to obtain reasonable cost financing and make investments in expanding capacity to meet an expanding renewable energy market.
- Allowing economies of scale in manufacturing, installation, operation and maintenance of renewable energy facilities.
- Promoting vigorous competition among renewable energy developers and technologies to meet the standard at the lowest cost.
- Inducing development of renewables in the regions of the country where they are the most cost-effective, while avoiding expensive long-distance transmission, by allowing national renewable energy circuit trading.
- Reducing transaction costs, by enabling suppliers to buy credits and avoid having to negotiate many small contracts with individual renewable energy projects.


Note 4: Federal standards for net metering

Net metering eliminates the administrative expense of installing, reading, and billing for an additional meter to measure generation separately from consumption. During surplus generation
periods, the single meter spins backwards, so that the customer is billed only for the net amount of electricity consumed during a billing period. By facilitating small-scale generation by customers, net metering will help reduce loads on central generation, transmission and distribution, enhancing reliability as well as fuel diversity.


Note 5: Improved federal standards for vehicle fuel economy

After five years of Congressional bans, studies on the potential for increases in CAFE standards to cost-effectively reduce petroleum demand are now underway by the Department of Transportation and the National Academy of Sciences. These studies, with results due in July 2001, will help to suggest optimal levels of increased standards, given the costs and benefits of higher fuel economy, as well as phase-in schedules that will protect the competitive interests of domestic automakers. The issue of raising CAFE standards is becoming increasingly relevant with progress in the PINGV program, and as several automakers are preparing to introduce high-efficiency fuel cell vehicles beginning as soon as 2003-2004.


Note 6: Climate change and the need for federal leadership

The U.S. can reduce greenhouse gas (GHG) emissions while improving our economic efficiency, creating jobs and saving consumers money, maintaining our technological leadership, and achieving other environmental benefits. The options presented in this letter not only represent a responsible energy strategy, but can also simultaneously address the need to reduce U.S. GHG emissions. In particular, they would support a range of strategies to reduce power plant emissions, which account for a substantial percentage of total U.S. emissions of greenhouse gases, 29 percent in 1998. These include switching from our current reliance on high-carbon fossil fuels, particularly coal and oil, to renewable fuel sources, which have zero carbon emissions, and lower-carbon natural gas; and increasing the efficiency of electricity generation and use.

We strongly support the recent initiatives in Congress, for which the current Administration has indicated it's backing, to reduce pollutant emissions from electricity generation. In the 106th Congress Senator Jeffords and Senator Lieberman introduced, S.1369, the Clean Energy Act of
1999. This legislation contained provisions that addressed the environmental damage and competitive distortions created by the patchwork of unequal and inadequate standards that currently apply to electric power plants nationwide. The bill put a national cap on emissions from all power plants of nitrogen oxides, sulfur oxides, mercury, and carbon dioxide. The reductions in carbon dioxide would have brought emissions levels back to 1990 levels by 2005, the same level implied by the non-binding targets of the Rio Treaty of 1992, as ratified by the U.S. Senate. Legislation that controls the four major power plant pollutants in an integrated package will help reduce uncertainties for electric generators and will be less costly than separate programs for each pollutant. Integrated control encourages system-wide efficiency improvements and increased utilization of cleaner fuels. And while voluntary action by American companies is an attractive option to consider, in the last ten years voluntary actions have failed to reduce carbon dioxide emissions in the U.S. Instead, emissions have increased by 15 percent since 1990 and continue to increase.


