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HIGHLIGHTS OF THE BUSH ENERGY PLAN AND A NEW FOCUS ON NUCLEAR POWER

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Thank you Chairman Fuji-ie, and members of the Atomic Energy Commission, for inviting me to share some thoughts with you today on the truly energizing policy dialogue on energy now taking place in the United States.

As Professor Fuji-ie mentioned, on May 17, President Bush unveiled his Administration's national energy strategy. Vice President Cheney and many members of the Bush cabinet have dedicated months to developing this plan -- studying U.S. energy problems and seeking solutions. I will first highlight the key general points. I will then address the more specific points on nuclear power.

For your reference, I have passed out a 12 page summary of many of the report recommendations. The full report is available at www.whitehouse.gov/energy/

The National Energy Policy Plan --which is designed to produce more reliable, affordable, and environmentally clean energy -- is built on three core principles:

First, the plan is forward looking.

Second, the plan recognizes that 21st century technology can allow us to promote conservation and diversify our energy supply.

Third, the plan outlines actions to provide reliable energy and protect the environment.

The Administration's 170-page plan is comprehensive, containing 105 specific recommendations:

42 of the recommendations will help modernize and increase conservation, protect our environment, and help our communities.

35 of the recommendations will help diversify the U.S. supply of clean, affordable energy and modernize our energy infrastructure.

25 of the recommendations will help the U.S. strengthen global alliances and enhance national energy security.

The Bush energy plan is a set of goals, it is not a piece of legislation -- but it clearly sets a tone

for action and active debate on key issues:

12 of the recommendations can be implemented by executive order.

73 of the recommendations are directives to federal agencies.

20 are recommendations for action by Congress.

The Administration's leadership comes at a crucial time. The U.S faces serious energy challenges: electricity shortages and disruptions in California and elsewhere in the West, dramatic increases in gasoline prices due to record-low inventories, high natural gas prices, a strained supply system, and continued dependence on foreign suppliers. According to a Gallup poll conducted last week, Americans consider energy the number one problem facing our nation.

The U.S. Department of Energy (DOE) forecasts that over the next 20 years, electricity demand will go up 45 percent, which means we will have to build more than 1,300 new power plants -- that's more than one a week -- just to meet the demand increases. Our demand for foreign oil will also increase by 33% over the next 20 years. Energy demand will vastly outstrip U.S. energy resource supply if no action is taken.

Recent and looming electricity blackouts in California demonstrate the problem of neglecting supply. They provide a picture for the rest of the U.S. of the potential consequences of failing to implement a long-term energy plan. Though weather conditions and design flaws in California's electricity restructuring plan contributed, the California electricity crisis is at heart a supply crisis. California's energy consumption has grown by about 7% a year, while production has remained flat. Unfortunately, there are no short-term solutions to long-term neglect. It can take new power plants and transmission facilities years to site, permit, and construct.

A few key elements of the plan are:

-- Modernize and expand the U.S. energy infrastructure : Create a new high-technology energy delivery network by expediting permitting for infrastructure improvements, expanding research on reliable energy transmission, and tearing down unnecessary regulatory barriers.

-- Expand and diversify energy supplies: Increase environmentally friendly exploration and production of domestic energy resources to diversify U.S. supply. The Administration's plan invests in new energy technology, expands the use of alternative and renewable energy such as wind, solar, biomass, and geothermal energy; and provides for the safe expansion of nuclear energy.

-- Increase conservation: Expand conservation programs, encourage the development of fuel-efficient vehicles for example.

-- Improve environmental protection: Through increased use of nuclear power, increased investments in clean coal research, expanded conservation efforts, and other measures, reduce

emissions. New anti-pollution technologies can allow us to increase energy production while protecting our environment.

THE PLAN FOR NUCLEAR POWER

Nuclear power has been given a prominent role in the plan. The elements of the energy plan related to nuclear energy are laid out on pages 15 through 17 in Chapter 5 of the National Energy Policy. Recommendations "to support the expansion of nuclear energy in the United States as a major component of our national energy policy" include, verbatim (Page 17):

> Encourage the Nuclear Regulatory Commission (NRC) to ensure that safety and environmental protection are high priorities as they prepare to evaluate and expedite applications for licensing new advanced technology nuclear reactors.
>
> Encourage the NRC to facilitate efforts by utilities to expand nuclear energy generation in the United States by uprating existing nuclear plants safely. (About 12,0000 MW of additional nuclear electricity generation could be derived from uprating U.S. nuclear plants, a process that uses new technologies and methods to increase rated power safety levels without decreasing safety.)
>
> Encourage the NRC to relicense existing nuclear plants that meet or exceed safety standards.
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> Direct the Secretary of Energy and the Administrator of the Environmental Protection Agency to assess the potential of nuclear energy to improve air quality.
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> Increase resources as necessary for nuclear safety enforcement in light of the potential increase in generation.
>
> Use the best science to provide a deep geological repository for nuclear waste. (While this project has undergone significant delays, progress has been made on the characterization of the Yucca Mountain, Nevada site. Construction of an exploratory site has been completed, a viability assessment was published, but key regulatory steps have not been completed).
>
> Support legislation clarifying that qualified funds set aside by plant owners for eventual decommissioning funds will not be taxed as part of the transaction.
>
> Support legislation to extend the Price-Anderson Act (key liability legislation expiring in 2002).

Two other main recommendations are, verbatim (Page 17):

> In the context of developing advanced nuclear fuel cycles and next generation technologies for nuclear energy, the United States should reexamine its policies to allow for research, development, and deployment of fuel conditioning methods (such as pyroprocessing) that

reduce waste streams and enhance proliferation resistance. In doing so, the United States will continue to discourage the accumulation of separated plutonium worldwide.

The United States should also consider technologies, in collaboration with international partners with highly developed fuel cycles and a record of close cooperation, to develop reprocessing and fuel treatment technologies that are cleaner, more efficient, less waste intensive, and more proliferation resistant.

While it is true that the 2001 proposed DOE budget includes funding cuts for nuclear energy and other energy programs, this reflects the need of the new Administration to assess current programs and set priorities. Now that the energy review has been issued, DOE can begin the process of planning its future r&d agenda. Further, the Administration is taking initiatives that do not necessarily rely upon DOE funding. For example, regulatory changes, liability legislation, and consideration of nuclear's environmental benefits are not the kinds of items that would be reflected in the DOE budget.

DOE will continue its programs to develop and deploy advanced technologies that improve the long-term reliability and efficiency of existing nuclear power plants. DOE is working to develop new nuclear power plant designs for the future - so-called "Generation IV" designs - that would be more economical and safer and that would minimize waste and be more proliferation resistant. DOE has also spurred innovation and performance through the Nuclear Energy Plant Optimization Program (NEPO) and its Nuclear Energy Research Initiative (NERI). In addition, DOE will start the International NERI program this year to conduct R&D on next generation reactor designs; fuel cycle technology; innovative technologies for plant design, fabrication, construction, operation and maintenance; and fundamental nuclear science.

Professor Fuji-ie, the U.S. Government looks forward to collaborating closely with you and our partners in Japan on a wide range of nuclear research initiatives, and I would like to take the opportunity here to thank you for all your efforts to support close cooperation in this field between our two countries.

Nuclear Energy "Attractive Again"

Several factors have been creating a new imperative for increasing nuclear energy's contributions to the U.S. energy mix. These factors include: growing energy demand, concerns about global warming, U.S. regulatory changes, cost of energy alternatives, license renewals, and new initiatives by Government and industry.

But, in my view, what has made a big impact on the climate for nuclear power has been the leadership of the Bush Administration in speaking out clearly and forcefully about the benefits and safety of nuclear power plants and the need to build more of them. Vice President Cheney,

for example, recently told the media: "We'd like to see an increase in the percentage of our electricity generated from nuclear power. It is safe, the technology gets better all the time, and it has the great advantage of not adding any to greenhouse gases, carbon dioxide emissions."
Vice President Cheney also stated: "We already generate 20% of our electricity from nuclear energy. We have operated those plants very, very safely and efficiently over the years and figured out ways to get even more capacity from them. The new technology is being explored that would make nuclear power even safer and more effective and cheaper to generate, so there are a lot of reasons why ... nuclear energy [is] attractive again. [Also, with] natural gas prices at these levels, all of sudden nuclear power looks much more economic than it did when gas was $1.50 or a $1.65 [per 1,000 cubic feet]. The whole argument over carbon dioxide emissions and greenhouse gases and so forth seems to me another argument on behalf of nuclear power."
The plan, in conjunction with energy legislation which is now being considered in the U.S. Congress - such as energy legislation being proposed by Senators Domenici and Murkowski - has without a doubt increased interest in nuclear power.
Though Three Mile Island (1979) and Chernobyl (1986) remain etched in public memory, the industry has built a solid safety record over the past decade. The installation of new design features, improvements in operating experience, nuclear safety research, and operator training have all contributed to this safety record. Nuclear power plant efficiency has
increased to record levels. Also, the 103 plants operating in the United States don't emit carbon dioxide or smog-causing pollutants into the atmosphere -and this fact is gaining growing recognition in the U.S.
National public opinion surveys for the Nuclear Energy Institute found the percentage of Americans agreeing that we should definitely build more nuclear energy plants in the future increased from 42% in October 1999 to 51% in January 2001 and 66% in March 2001. The increases in support for building new nuclear power plants are seen in all regions of the U.S., with the largest changes in the western region, where energy problems have been most severe, and the Midwest.
The leading San Francisco newspaper published an article on May 23, entitled "Nuclear Power's California Comeback." The article reported a statewide poll that found that 59% of Californians favored building more nuclear power plants. The article called this finding a "complete reversal" of public attitudes.
While the issue of building a new nuclear power plant is largely a private sector decision, the climate for construction does have an impact on industry plans and also on the ability of nuclear power plants to obtain financing. Several large nuclear generating companies are actively working to create the conditions that will be necessary to order new nuclear power

plants. Exelon is looking at the pebble-bed reactor. Other companies may be more interested in advanced light water reactor designs. Time to build and construction costs will be important considerations. The industry believes that the plants can be competitive -- and they are working with Wall Street to find innovative financing arrangements.

CONCLUSION

Again, thank you for the opportunity to speak to you today. The U.S. debate on developing energy solutions has just really begun, and we look forward to seeing how the Bush Administration's vision and other ongoing energy dialogues translate into real change.