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U.S. Energy Security and the 2008 Presidential Election

Following are the prepared remarks by U.S. Sen. Dick Lugar (R-IN) at the Brookings Institution on U.S. Energy Security and the 2008 Presidential Election:

I am grateful to my good friend Carlos Pascual for his kind introduction and to the Brookings Institution for this opportunity to speak on energy security. I want to congratulate Brookings for establishing a new Energy Security Initiative, on which I am proud to serve as an Advisory Board member. The initiative will take advantage of the broad expertise of Brookings Scholars across fields that intersect with energy security and will offer valuable analysis and policy options in the years ahead.

This is my second opportunity to come to Brookings to speak about energy security. In March 2006, I asserted that the exploding demand for energy, the vulnerability of energy supplies to terrorism and warfare, the increasing concentration of energy assets in the hands of problematic governments, the growing willingness of these governments to use energy as a geopolitical weapon, and evidence that climate change was accelerating had combined to fundamentally change the energy debate. I contended that the "balance of realism" in U.S. energy policy had shifted from proponents of a fossil fuel-based, laissez faire approach relying on market evolution to advocates of energy alternatives who recognize the urgency of achieving a major reorientation in the way the United States obtains and uses energy. I said that in the absence of revolutionary changes in energy policy, we would be risking multiple disasters for our country that would constrain living standards, undermine our foreign policy goals, and leave us highly vulnerable to economic and political disasters with an almost existential impact. The new energy "realist" must ask: how can we shape our energy future before it shapes us in calamitous ways?

Continuing U.S. Energy Vulnerability

In the nearly two years since I gave that speech, public awareness of our energy dilemma has improved. Politicians understand that Americans care about energy security, the environmental and balance of payments impact of oil dependence, and the cost of energy. Yet, despite the growing focus on energy issues in American politics, we have not committed ourselves to the policy steps required to achieve a promising alternative future.

In fact, advancements in American energy security have been painfully slow during the last two years, and political leadership has been defensive, rather than pro-active. One can point with appreciation to some positive trends and initiatives. For example, the energy bill passed last week by the Senate included a substantial increase in the renewable fuels standard. It took Senators Daschle, Harkin, and me five years to pass an RFS that was less than a quarter of the 36

billion gallons now agreed upon. But compared to our acute energy vulnerability, progress in most areas of energy policy has not been sufficient.

If we have to endure an oil embargo, if terrorists succeed in disrupting our oil lifeline, if we slide into a military conflict because oil wealth has emboldened anti-American regimes, or if eventual scarcity of oil sends prices to unfathomable heights, it will not matter that before disaster struck, the American public and its leaders gained a new sense of realism about our vulnerability. It will not matter that we were producing marginally more ethanol than before or that consumers are more willing to consider hybrids and other alternative vehicles. Achieving a positive trend line is almost inevitable as long as energy costs remain high, because these costs will lead to some improvements in investment and conservation. We need to have the discipline to understand that a modestly positive trend line is not enough.

Last month we received another wake-up call about exploding global energy demand. In its annual "World Energy Outlook," the International Energy Agency offered several startling estimates. It predicted that global demand for energy will increase by 50 percent by 2030. Three quarters of this demand growth will come from the developing world and 45 percent of it from China and India alone. Eighty-four percent of that demand growth is expected to come from fossil fuels, translating into a 57 percent increase in carbon dioxide emissions.

The IEA projected that global oil demand will increase from about 85 million barrels per day to about 116 million barrels per day by 2030. To meet surging oil demand, the world will become even more dependent on OPEC, with more than half the world's oil supply coming from those countries.

Meanwhile as oil prices have flirted with \$100 per barrel, the income of oil exporting nations is soaring. According to the U.S. Treasury Department, the number of sovereign wealth funds doubled between 2000 and 2005. These national investment reserves now hold between \$1.9 and \$2.9 trillion. Some estimates double those figures. Russia has about \$130 billion in its Stabilization Fund, and Venezuela has an estimated \$18 billion. These funds could be used to infuse helpful liquidity into international financial markets and promote local development, yet they could also be used for political manipulation and to undermine key U.S. foreign policy priorities.

We can debate the margin of error in any of these projections, but the picture they paint is a bleak one for global stability and U.S. influence. In the absence of technological breakthroughs that expand energy supplies for billions of people worldwide, it will be exceedingly difficult to meet the world's energy needs. If concerns over climate change are factored into policies, the challenge becomes even greater, because serious efforts to limit carbon could constrain energy options – particularly the use of coal.

We find ourselves in a situation that should be intolerable for a superpower and for a nation with such high economic expectations. We maintain a massive military presence overseas, partly to preserve our oil lifeline. One conservative estimate puts U.S. oil-dedicated military expenditures in the Middle East at \$50 billion per year. But there is no guarantee that even our unrivaled military forces can prevent an energy disaster. We have lost leverage on the international stage and are daily exacerbating the problem by participating in an enormous wealth transfer to authoritarian nations that happen to possess the commodity that our economy can least do without. October trade figures show that our non-petroleum trade deficit shrank by 2.9 percent that month, but because of our oil import bill, the overall U.S. trade deficit rose 1.2 percent to \$57.8 billion. Our energy vulnerability is intensified by the increasing percentage of U.S. public debt – now 44 percent – held by foreign entities

and the dimming luster of the dollar. A very significant recession could be triggered by economic or geopolitical forces over which we have little control.

I do not believe these challenges are insurmountable, but it is unlikely that we can address them within the prevailing political mindset that has proven to be incapable of more than incremental action on energy security.

Energy: The Most Important Issue of 2008

Today, I would state unequivocally, that energy security and the economic and environmental issues closely associated with it should be the most important topics of the 2008 Presidential election. I say this deliberately, notwithstanding the existence of extremely important immediate concerns such as the war in Iraq and the performance of the American economy, as well as persistent public policy struggles that have confronted us for decades, such as deficit reduction, health care, and social security. I say this even in the context of my own long standing evangelism related to non-proliferation and arms reduction, issues which I believe have not diminished in importance.

Three factors lead me to the conclusion that energy is the most vital topic of this Presidential election. First, energy is the issue with the widest gulf between what is required to make our nation secure and what is likely to be achieved through the inertia of existing programs and Congressional proposals. As such, it is the issue on which meaningful progress most depends on the great intangible in American public policymaking – the application of dramatic, visionary, and sustained Presidential leadership.

Congress and private enterprise can make evolutionary energy advancements, but revolutionary national progress in the energy field probably is dependent on presidential action. Our energy dependence is perpetuated by a lack of national will and focus. Only the President has the visibility to elevate a cause to national status, and only the President can leverage the buying power, regulatory authority, and legislative leadership of an administration behind solving a problem that is highly conducive to political procrastination and partisanship.

Second, transformational energy policies are likely to be a requirement for achieving our economic and social aspirations here at home. In an era when exploding global demand for energy creates high prices and fears of scarcity, the U.S. economy is likely to continue to underperform. Our ability to address social security, health care, education, and overall budget problems will be heavily encumbered over both the short and the long run if we do not mitigate our energy import dependence. Almost any scenario for recession will be deepened by high energy costs. Moreover, many of the most severe recession scenarios involve sustained energy disruptions due to terrorism, war, embargo, or natural disaster.

Third, energy is the underlying condition that exacerbates almost every major foreign policy issue. We pressure Sudan to stop genocide in Darfur, but we find that the Sudanese government is insulated by oil revenue and oil supply relationships. We pressure Iran to stop its uranium enrichment activities, yet key nations are hesitant to endanger their access to Iran's oil and natural gas. We try to foster global respect for civil society and human rights, yet oil revenues flowing to authoritarian governments are often diverted to corrupt or repressive purposes. We fight terrorism, yet some of the hundreds of billions of dollars we spend each year on oil imports are diverted to terrorists. We give foreign assistance to lift people out of poverty, yet energy-poor countries are further impoverished by expensive energy import bills. We seek options that would allow for military disengagement in Iraq and the wider Middle East, yet our way of life depends on a steady stream of oil from that region. American national security will be at risk as long as we are heavily dependent on imported energy.

Vigorous energy diplomacy of the type that only a committed President can ensure is required around the world. Even as we seek to reduce our foreign oil dependence, the United States will remain part of the global energy system and our foreign policy priorities will be affected by the production and consumption decisions of other nations. A top priority in our relations with China and India should be helping them avoid replicating U.S. dependence on oil and coal and guiding them to cleaner power generation technologies. Countries from Indonesia to Egypt to Chile are considering new nuclear power programs, creating new risks for proliferation of enrichment technology. Management of energy relations with Russia will remain difficult for our NATO allies. And any strategy for resolving the situations in Iraq and Iran must include a plan for stability of Persian Gulf oil supplies.

Making progress in Central Asia and the Caucuses is another case in point. Recently President Putin of Russia sought to secure agreements with Kazakhstan and Turkmenistan to ship their energy north through Russia, rather than through alternative routes that would not be dominated by the Kremlin. Next month, I will travel to the region to demonstrate American interest in strengthening relations with these countries. An East-West energy corridor would help reduce Russia's stranglehold on gas shipments to Europe. Diplomatic support for the Baku-Tbilisi-Ceyhan and South Caucuses pipelines that have led development of the corridor was a bold initiative with tremendous strategic importance. Already we have seen benefits for stability in the region and closer relationships with Georgia and Azerbaijan. Those benefits can also be reaped in Central Asia.

Measuring Commitment to Energy Leadership

Whoever is sworn in as President in 2009 must elevate energy security to the status of a core national goal and must directly engage all the American people in the solution. If the next President addresses energy through a familiar ideological prism, the chance to strengthen U.S. national security and economic prosperity will be lost. To succeed, the President must be more than thoughtful and attentive to energy concerns. The President must be relentless. He or she must be willing to stake the reputation of the Administration on politically difficult breakthroughs that meaningfully contribute to U.S. energy security. The President must be willing to have his or her Administration judged according to its success or failure on this issue.

Politically, that is not an easy thing for a President to accept. The President will have advisers who will be whispering cautions about the risks of committing the prestige of any Administration to aggressive energy goals. Those advisers will say with some credibility that a President can appear forward looking on energy with a few carefully chosen initiatives and occasional optimistic rhetoric promoting alternative sources. They will say that the voting public's overwhelming energy concern is high prices for gasoline and home heating, and that as long as the President appears attentive to those concerns they can cover their political bases without asking for sacrifices or risking the possible failure of a more controversial energy policy. They will point out that the core constituency of their party will have expectations on energy policy that would rule out entire categories of action.

The next President must reject this type of politically defensive posture. The President must be willing to operate outside the energy policy orthodoxy of his or her party. The President must avoid the temptation to substitute popular gestures like reducing gasoline taxes or using the strategic petroleum reserve to temporarily cut gasoline prices for a true energy security program.

He or she must be willing to reject subservience to the major energy and environmental lobbying groups without denying the contributions that each of these groups can make.

With these reference points in mind, I would submit that it is not enough for Americans to ask presidential candidates which energy solutions they prefer or what legislation they will endorse. Americans need to be able to measure the commitment of the candidates to changing the fundamental energy equation in the United States. Voters deserve answers from Presidential candidates on such questions as:

How will you involve members and groups of the other party in energy deliberations from the beginning of your administration, and will you oppose members of your own party who stand in the way of broad energy achievements?

How often will you personally devote your attention to energy security, and how often will you speak to the American people about it? Will you feature energy security in your inaugural and State of the Union addresses?

Will you guarantee that your Energy Secretary will be the most talented person you can find -- a visible big leaguer who inspires public confidence and will not be relegated to the fringes of your Administration?

How will you impress upon the rest of your Cabinet, including the Secretaries of State, Defense, Commerce, and Treasury, that they must factor energy concerns into their work every day and be prepared to work closely with the Secretary of Energy?

Will you attempt to build public pride in achieving energy goals, and will your Administration produce and publicize clear benchmarks of progress toward those goals, even when progress has failed to meet public expectations?

Will you make clear to every member of your Administration that achieving your energy goals is among the highest of Administration priorities, and will you dismiss advisers if they deliberately slow down or undermine progress toward your goals?

Rising Above Partisan Divisions

Despite auspicious words, Democratic and Republican Presidential candidates are at risk of locking themselves into policies from the playbooks of their respective parties. Although there have been some exceptions, the major candidates have split along party lines on most energy issues. As a report by Edmund Andrews in the New York Times recently observed: "On oil, the parties fall into 2 camps: use less or find more."

Republican candidates generally reject government market intervention and favor increased oil drilling. They point out that government regulation and mandates run counter to the entrepreneurial forces of our market system. Yet a laissez-faire approach is insufficient for bringing innovation, trial production runs, and dramatic volumes of production quickly enough to meet looming energy challenges. It also fails to recognize that global energy markets are not free. According to PFC Energy, about 79 percent of the world's oil supply is controlled by state-run oil companies.

Domestically, new energy technologies face hurdles well beyond price. Our nation's infrastructure has been built around the premise of cheap and accessible oil - a premise that is no longer valid. Aside from the rare E85 pump, Americans are not free to choose fuels other than

those based on petroleum. Likewise, markets have failed to internalize the costs of climate change, a huge challenge. The market needs clear signals to guide investment and innovation toward the national interest. New energy technologies need a hand-up to prove their validity and to become price competitive over entrenched market biases. This does not mean endless subsidy. For example, to jumpstart biofuels usage I advocate replacing the current static 51-cent subsidy for ethanol with a variable subsidy tied to the price of oil that includes a sunset provision. This will effectively serve as a price floor for oil.

Although we should look critically at proposals for mandates, some may be necessary to overcome market blockages in the interest of national security. Mandates requiring production of flex-fuel vehicles, installation of E-85 pumps, and increased CAFE standards are justified now given the national security gains we would reap from significantly reducing oil consumption.

For their party, the Democratic platform of green idealism risks diverging from the energy reality faced by the United States and the world. I share the view that the threats related to climate change are potentially severe and require international action and U.S. leadership. But U.S. climate policies have to be synchronized with a sober evaluation of what is possible globally. World demand for fossil fuel consumption, given the rapid industrialization of China, India, and other emerging economies, will continue to be voracious, as the IEA predicts. China's demand for power generation so far this year has grown at an astonishing annualized rate of more than 16 percent. In this context, long-range, arbitrary targets for cutting global greenhouse gas emissions will be quickly overwhelmed without rapid breakthroughs in energy technology and much greater global coordination.

For some Democrats, nuclear power, coal, and increased oil exploration are simply off the table. Yet coal is the single largest source of electric power in this country, and we have abundant reserves. Instead of aggressively pursuing technologies to capture and store or use greenhouse gases, some green idealists would have us stop using coal completely. Domestic oil exploration will not solve our energy import dependence. But the extraordinary vulnerability of the United States to the machinations of unfriendly oil-rich nations necessitates that we attempt to maintain our domestic supplies through continued exploration. Reticence toward nuclear power is equally problematic in a world of rapidly expanding carbon emissions. Continued progress on safety and waste issues is necessary, yet nuclear power offers an abundant alternative to carbon-intensive fuels.

A credible energy security agenda demands that we break free from partisan divisions. This will require tremendous leadership from the President, who must speak plainly to the American people and special interests. It also requires dogged devotion to solving specific energy deficiencies. A broad, unfocused campaign to achieve an ill-defined state of "energy independence" almost guarantees that no objective will receive the resources and attention necessary to overcome technological obstacles and societal inertia.

Issues for Presidential Leadership

I believe the President should communicate in the early days of his or her Administration that the Federal government will use every power to make competitively-priced biofuels available to every motorist in America. Such an accomplishment would transform our transportation sector and cut our oil import bill. It would require multiple elements, including ensuring that virtually every new car sold in America is a flexible fuel vehicle capable of running on an 85 percent ethanol fuel known as E-85; that at least a quarter of American filling stations have E-85 pumps; and that ethanol production is rapidly expanded – especially ethanol from biomass. None of these goals are easy to meet, but none are impossible if the weight of the

Federal Government and high profile presidential advocacy are devoted to their realization. Brazil already has achieved the large-scale deployment of ethanol as a national transportation fuel, and its success is a source of public pride in that country. Brazil has also found and developed new off-shore oil.

Equally important, the next President must ensure that improvements in gasoline and diesel mileage are not limited to the higher CAFE standards in the energy bill passed by the Senate. As one example, successful commercialization of a plug-in hybrid vehicle could make a 35 mile-per-gallon goal look archaic. The Federal Government has numerous tools to improve the mileage of U.S. vehicles, from direct federal support for research, to government fleet purchasing, to market regulations and incentives. Given that other developed nations have made great strides in improving fuel economy, this is fertile ground for rapid improvement. In fact, achievements on this front largely would be a matter of generating and sustaining political will. Incredibly, cars in America today get less mileage per gallon than they did 20 years ago. Meanwhile, hybrids, plug-in hybrids, and fully electric cars are at or nearly at commercialization, yet there is not enough incentive for consumers to buy them or producers to make them on the mass scale necessary.

The next President also must begin a national dialogue on nuclear power that grapples with public concerns over safety and waste disposal, and reaches decisions about whether the Federal government will encourage the construction of new facilities through liability protection and loan guarantees. But after the dialogue, the necessary facilities must be built.

Similarly, the President must initiate a plan on how we will use America's vast coal resources. The United States must accelerate work on technologies to capture and store carbon that could be employed both in this country and abroad.

The President also must ensure that vital research and demonstration projects are not encumbered by bureaucratic inertia, red tape, or political resistance. During the last several years, for example, we experienced exasperating delays in the groundbreaking for the first commercial-scale cellulosic ethanol plant as investors waited for the Federal Government to establish the regulations and application procedure for a loan guarantee program. The program was meant to jump start the commercialization of cellulosic ethanol – a key goal of President Bush and Congress. But despite the urgency of this mission, the Energy Department's glacial implementation of the program frustrated potential investors and those of us who are urging the transition to gasoline alternatives. This project is moving forward, but critical time was lost.

The development and deployment of new technologies is likely to be the difference between success and failure of our efforts at energy transformation. The next President must demand that research projects related to battery technology, cellulosic ethanol, carbon capture and storage, solar and wind power, and dozens of other technologies receive the highest priority within the Administration.

We must be very clear that energy security is a political problem. The United States has the financial resources, scientific prowess, productive land, and industrial infrastructure to address our energy vulnerability. The question is whether we will heed abundant warning signs and apply the leadership and political will to deal with this problem in the present rather than suffering grave consequences in the future. Meeting this challenge of statesmanship will be the defining test of the next Presidency. I look forward to encouraging whoever is elected to take up this challenge. I am confident that you will do the same. Thank you.