TESTIMONY
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SAVING THE NPT AND THE NONPROILFERATION REGIME IN AN ERA OF NUCLEAR RENAISSANCE
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Securing the Nuclear Renaissance

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Chairman Sherman, Congressman Royce, and members of the Committee, I am honored to appear before you today and congratulate you for your decision to explore the issue of the nonproliferation regime and likely impacts upon it by the nuclear renaissance.

I wish to submit for the record a recent Report by an independent "Commission of Eminent Persons" established by the IAEA Director, Mohamed ElBaradei, entitled "Reinforcing the Global Nuclear Order: The Role of the IAEA." I served as co-Executive Director of this Commission, and as a result of that experience over the past year, have had the opportunity to examine the global nuclear order from the perspective of the IAEA. But in my testimony and in answer to questions, I am speaking not for that Commission, or any other institution with which I am associated, but expressly and entirely for myself.

Director General ElBaradei created the Commission to advise on how the nuclear future might evolve to 2020 and beyond, what the world is likely to demand of the IAEA, and what steps need to be taken to allow the IAEA to fill those needs. The question before us is: what actions must the international community take to maximize the contributions to human well-being from nuclear energy and nuclear technologies, while minimizing their risks?

Given the complexity of the issues you raised in calling this hearing, I think it is appropriate to begin with the big picture. From 30,000 feet, let me offer what I believe are four central truths:

1. Nuclear terrorism. The issues you are addressing have so many dimensions, each of which is so complex, that they threaten overload. I believe these complexities can best be resolved through the lens of nuclear terrorism. If one begins by thinking about al Qaeda exploding just one nuclear bomb and devastating the heart of one American city—a threat that I believe is larger today than it was

when al Qaeda killed 3,000 innocent Americans at their desks on the morning of the 11th of September, 2001—one can help bring these complexities into focus. In conjunction with my book, Nuclear Terrorism: The Ultimate Preventable Catastrophe, we put up a website: www.nuclearterrorism.org. You can put in your own zip code there and see what the small (10 kiloton) nuclear bomb that was thought to be in New York City a month after 9/11 would do in your neighborhood. This is, as President Bush and his challenger Senator Kerry agreed in the 2004 Presidential campaign, the "the single most serious threat to American national security." Thus in grappling with questions about the NPT or the IAEA, I suggest it is useful to ask about this bottom line: what impact does this have on the likelihood of a nuclear 9/11?

2. Present at the unraveling? Dean Acheson, who was Secretary of State after World War II, helped create the global order that has brought us the longest period of peace and prosperity ever enjoyed by human beings. He entitled his memoir: Present at the Creation. Writing today, one might choose the title: Present at the Unraveling. In my view, there is a substantial chance that we are living through the unraveling of the nonproliferation regime that has held back the spread of nuclear weapons, nuclear wars, and nuclear terrorism, for four decades. I agree with the conclusion of the UN High Level Panel on Threats, Challenges, and Change, which warned that the erosion of the nonproliferation regime is reaching a point at which it could "become irreversible, and result in a cascade of proliferation."

   As Henry Kissinger has noted, a defining challenge for statesmen is to recognize "a change in the international environment so likely to undermine national security that it must be resisted no matter what form the threat takes or how ostensibly legitimate it appears." An unraveling of the nonproliferation regime would constitute just such a transformation undermining the security of all civilized nations. The question is whether statesmen will act in time to prevent this catastrophe.

3. Risks in the Nuclear Renaissance. The nuclear renaissance that most observers expect to significantly expand the number of nuclear energy plants over the next several decades increases the risk that the nonproliferation regime will unravel. The increased risk comes not from new nuclear energy plants in themselves. Rather, it comes from the prevailing interpretation of the Nonproliferation Treaty that allows states that acquire nuclear energy reactors to also acquire a full fuel cycle. If the expansion of nuclear energy reactors leads to a proliferation of uranium enrichment facilities and reprocessing facilities for separating the spent fuel, this will certainly provide a cover for new nuclear weapons states, significantly increasing risks that nuclear weapons end up in hands of terrorists.

4. Strengthened IAEA. The world needs a strengthened IAEA in a reinforced nonproliferation regime. Unless the current standards and practices for nonproliferation, security, and safety are significantly strengthened, current trend-

lines will abort the nuclear renaissance and assist catastrophic attacks upon the United States In IAEA language, the three S's - safeguards (accounting to deter and discover state diversion of peaceful nuclear energy applications to nuclear weapons programs), security (theft of nuclear material by crooks inside or outside a system who could sell this material to terrorists or states for making bombs), and safety (prevention of accidents like Chernobyl) – need to be significantly strengthened.

The report presents four key judgments, proposes four new partnerships, and makes seven specific major recommendations. The four judgments define the current nuclear challenge:

1. Supplying the energy required to sustain rapid global economic growth, while constraining greenhouse gas emissions to assure a livable environment, will require dramatically expanding the use of nuclear energy.
2. Such an expansion in the supply of nuclear energy will not be possible without significant changes in the current nuclear order. These include concrete steps to prevent nuclear accidents, nuclear terrorism, and the proliferation of nuclear weapons, as well as significant progress towards nuclear disarmament. Failing on any of these fronts will undermine hopes for large-scale growth of nuclear energy and doom the possibility of significant reductions in carbon emissions.
3. The current global nuclear order that includes tens of thousands of nuclear weapons and powerful incentives for nuclear proliferation and terrorism poses major risks that must be addressed.
4. The fundamental changes needed in the nonproliferation and nuclear energy regimes cannot be commanded or compelled by nuclear weapons states or nuclear supplier states. Instead, they must win the support of a significant majority of people and nations in the world in a new grand bargain for nuclear energy, nonproliferation, development, and disarmament.

The new global nuclear order required to respond to these challenges will evolve over time. It must, however, be defined by increased international cooperation and partnership; expanded transparency; more effective standards for safety and security worldwide; new nonproliferation measures, and firmly placing nuclear weapons in the background of international affairs.

The Commissions proposes four new partnerships to manage the evolving nuclear order.

1. A partnership between nuclear weapons and non nuclear weapons states must include major steps to strengthen the global nonproliferation regime as well as major steps toward nuclear disarmament to fulfill the nuclear weapon states' Nonproliferation Treaty obligations. Action on both of these fronts improves the security of all states, and action on both will be required to achieve agreement on either.
2. A partnership between nuclear technology suppliers and states that want nuclear power must assure international supervision and control of fuel supply and waste disposal in ways that make reliable nuclear energy available to all states while reducing proliferation risks.

3. A partnership between governments, the private sector, and international agencies in which all of these parties share the responsibilities and costs of assuring that nuclear energy is safe, secure, and does not contribute to nuclear proliferation.
4. A partnership between developed countries, developing countries, international development institutions, and the IAEA to maximize the contribution of nuclear technologies to development and human well-being.

The Commission offers a number of important findings and recommendations to reduce the chance of sliding into the "nuclear anarchy" scenario, and to increase the likelihood of moving towards an "era of Atoms for Peace and Prosperity." These include:

- **Strengthened safeguards.** The Commission calls for an array of steps to strengthen safeguards, urging that all states adopt the Additional Protocol, and ultimately that states agree to an "Additional Protocol Plus" allowing the IAEA to inspect sites related to nuclear material production technologies (such as centrifuge-making plants), giving the Agency the right to private interviews with key scientists, and more. The Commission believes that existing agreements should be interpreted to give the IAEA the authority to look for indicators of weaponization, and recommends establishing a qualified team for that purpose.

- **Stringent global nuclear security standards.** The Commission urges states to "negotiate binding agreements that set effective global nuclear security standards," tough enough to ensure that every nuclear weapon and every cache of plutonium or HEU worldwide is reliably protected against the kinds of threats terrorists and criminals have shown they can pose. The Commission calls for giving the IAEA a mandate to confirm that those standards are being implemented, "within the constraints of necessary secrecy"; consolidating nuclear weapons and materials to the smallest practicable number of sites; converting or shutting down HEU-fueled research reactors; phasing out civil use and all production of HEU, and giving the IAEA a precise mandate to confirm that these standards are being implemented.

- **New nuclear safety standards.** Similarly, the Commission emphasizes the critical importance of stringent safety standards applied everywhere, and calls on states to enter into binding agreements to implement effective safety measures and to allow international peer reviews of safety at all their nuclear power plants.

- **New steps to control the fuel cycle.** The group calls on the IAEA Board to approve an international nuclear fuel bank without delay, and for a continued push toward more multinational or international control of enrichment and reprocessing facilities, with the ultimate goal of bringing "the entire fuel cycle, including waste disposal, under multinational control, so that no one country has the exclusive capability to produce the material for nuclear weapons." The Commission also emphasizes the value of fuel-leasing and reactor-leasing

approaches and international spent fuel repositories, and calls for development of multinational partnerships that would provide small factory-built reactors with extremely high levels of built-in safety and security, provided with comprehensive fuel services.

- **Stopping black-market nuclear networks.** The Commission advocates for greatly expanded international police and intelligence cooperation to stop black-market nuclear networks; a stepped-up effort to help states implement their UNSC 1540 obligations to put in place effective export controls, border controls, and transshipment controls, including having the IAEA develop model legislation that states could draw on; and beefing up the IAEA unit devoted to tracking black-market networks, giving it more resources and a broader mission, not just to inform IAEA safeguards but to help states "shut down these networks and find and fix leaks in their control systems."

- **Broad steps toward nuclear disarmament.** The Commission makes the point that getting political support among non-nuclear-weapon states for new nonproliferation steps will require arms reduction progress, and calls for a broad disarmament agenda in which "early steps" would include "deep reductions in existing arsenals; removal of all nuclear weapons from quick-launch alert; transparent security and accounting for, and reductions in tactical nuclear weapons; verifiable dismantling of excess nuclear weapons; secure and verified storage and disposition of all plutonium and HEU not required for remaining military purposes; ratification of the Comprehensive Test Ban Treaty; and a verifiable global treaty ending the production of nuclear materials for nuclear weapons."

- **A major boost in the IAEA budget.** The IAEA is indeed "an extraordinary bargain," considering that it carries out its responsibilities of immense value to humanity at a very low cost. The Commission makes clear that with the amount of material under safeguards having increased more than 10-fold during the period the IAEA has largely been confined to a zero-real-growth budget, the IAEA needs more resources to do its current job – and would need still more to carry out the bigger mandate the Commission envisioned. The Commission calls for a one-time $124 million increase to pay, among other things, for refurbishing the IAEA's safeguards lab and beefing up its emergency response center, coupled with increasing the $448 million regular budget by roughly $77.5 million each year for several years (roughly 17% a year). By 2020, the Commission envisions a doubled IAEA budget.

The "nuclear renaissance" propelled by the demand for energy to fuel accelerated economic groups, and growing consciousness about climate consequences of carbon emissions from coal and oil, entails real risks. A "business-as-usual" approach could lead to a future that includes nuclear terrorism, more Chernobyls, even nuclear wars ending in nuclear anarchy. These dangers should not lead us to turn our backs on the "nuclear

renaissance." Instead, they should focus and mobilize us to do everything we possibly can to enact a bold agenda to reconstruct a more secure global nuclear order.