ASSOCIATION OF AMERICAN UNIVERSITIES

ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES

June 12, 2009

The Honorable Nancy Pelosi
Speaker
U.S. House of Representatives
H-232 Capitol Building
Washington, DC 20515

Dear Speaker Pelosi:

On behalf of the Association of American Universities (AAU) and the Association of Public and Land-grant Universities (A·P·L·U), we write to offer comments on H.R. 2454, "The American Clean Energy and Security Act" which was recently approved by the Energy and Commerce Committee. As this bill is considered further by other House committees, including the Science and Technology Committee, and by the full House, we urge serious consideration of the needed commitment to energy research, development and training programs.

The combined memberships of AAU and A·P·L·U include most major public and private research universities in the United States. We recognize the important roles and responsibilities that our universities must play to produce the intellectual talent and the scientific breakthroughs and new energy technologies required to meet the energy and environmental challenges facing our country. Our universities are already seriously engaged in this work; they are prepared to be full partners in these critical efforts.

Achieving a new energy and environmental reality will require a sustained and significant investment in research, development, and training. In order to achieve CO2 emissions reductions of 50-80% by 2050 as called for by the Intergovernmental Panel on Climate Change, the International Energy Agency (IEA) has estimated worldwide R&D investments will need to be increased to levels in the trillions of dollars.

Unfortunately, our nation and the rest of the world have been woefully under-investing in these areas for almost three decades. Today Federal energy R&D expenditures are just one-fifth of their 1980 peak as a percentage of GDP. Indeed, since 1980 the U.S. federal investment in energy R&D has decreased by 58 percent. At that time, a total of 10 percent of the total government R&D investments were in energy. Today that percentage has shrunk to only two percent. With the exception of Japan, every other major developed country has also decreased their investments in energy R&D since 1980. This worldwide underinvestment has left our current knowledge base and our available clean energy technologies woefully inadequate to tackle looming energy and climate challenges.

We were encouraged when the President said in his February 2009 address to Congress that using new revenues generated from a proposed carbon emissions cap and trade system, "we will invest $15 billion a year to develop technologies like wind power and solar power, advanced biofuels, clean coal, and more efficient cars and trucks built right here in America." We were further encouraged when Secretary of Energy Steven Chu said during a speech at MIT this spring that to meet the climate change challenge, government spending on energy R&D must move to the levels of high-tech industry, which are generally 10 percent or more of sales. The proposed

allocation of cap and trade revenues to energy R&D in H.R. 2454 falls far short of the allocation that would be necessary to match the President's promise and the vision outlined by the Secretary of Energy. Moreover, even within the allocation contained in H.R. 2454, far too little emphasis is given to supporting high-risk, high-payoff energy research and new energy education and training efforts.

As the House moves forward with H.R. 2454, we strongly urge you to increase the amount of R&D funding designated for the development of clean energy technologies to bring it more in line with the President's proposal of $15 billion. We further encourage Congress to designate approximately a third of these funds to support early stage basic, applied and transformational research and to expand energy education and workforce efforts. If we succeed in creating new clean-energy innovations, it will not only solidify our nation's standing as the leader in clean energy but also lead to decreased carbon emissions, reduce our dependence on foreign oil, and reduce the disruptive impacts of a regulatory system. We also highly recommend that Congress front-load this R&D investment, because the sooner we make major research breakthroughs, the quicker we will be able to mitigate adverse environmental impacts.

We commend you for your extraordinary leadership in advancing the innovation agenda in Congress. We view the passage of the America COMPETES Act and spending provided in both the FY2009 appropriations bills and the American Reinvestment and Recovery Act as major steps in helping to increase much needed research and training in energy related fields. Continued incremental increases in appropriations for basic research, as embodied in the America COMPETES Act and the President's budget, are crucial. But these increases will likely be insufficient by themselves, because they bring us only a fraction of the way back to the energy research funding levels of the early 1980s. If we as a nation are serious about addressing climate and energy problems, we must supplement the America COMPETES Act funding levels by utilizing a significant portion of the revenues from whatever system Congress decides is appropriate for addressing carbon emissions.

As you continue to make progress on this legislation, we would be happy to provide more details and answer questions.

Sincerely,

Robert M. Berdahl

President
Association of American Universities

Peter McPherson

President
Association of Public and Land-grant Universities