



5 December 2008

Thomas Kalil
Team Lead
Agency Review Team, Office of Science and Technology Policy
Obama-Biden Transition

Dear Mr. Kalil,

On behalf of more than 215,000 engineers, scientists and allied professionals represented by the Institute of Electrical and Electronics Engineers-United States of America (IEEE-USA), we are writing to provide our recommendations to President-Elect Barack Obama's transition team on science and technology (S&T) priorities for the first months of his new administration.

In this time of economic turmoil, we recognize the need for investments that promise near-term payoffs, particularly job creation. At the same time, we believe that long-term investments in S&T will drive innovation and sustain America's technological competitiveness for the future. Our nation has prospered because of our ability to inspire new ideas, create new products and build new industries. This basic formula for prosperity has not changed with the recent economic downturn. Technology and innovation remain the cornerstone of our nation's economy. Any plan for creating jobs and economic growth begins with encouraging innovation that promotes those new ideas and products and, ultimately, results in jobs.

We recommend the following:

- **R&D Investments:** Set levels for increased funding in FY2009 appropriations for engineering, the physical sciences and mathematics at levels authorized by Congress. These increases will help create new jobs over the medium and long term, and are especially needed to prevent damage to our national S&T capabilities resulting from loss of key personnel, possible closures of critical research labs and failure to honor international S&T obligations. We would applaud a presidential initiative to revitalize U.S. manufacturing by promoting new technologies and encourage private-sector entrepreneurship. Making the R&D tax credit permanent would also have a near-term impact on company planning and investments, with immediate benefits to employment in the high-tech sector.
- **Broadband:** Rapidly accelerate the deployment of universal, affordable broadband infrastructure through a national strategy using increased grants, loans and other incentives. This will quickly create infrastructure-related jobs. It will also dramatically expand the range of positions for which displaced workers can compete without relocating. As with the universal deployment of electricity and telephone service, universal broadband service, coupled with new Internet applications, will generate economic and social gains that far exceed the investment in the enabling infrastructure. Chief among these are expanded access to continuing education, improved health care and a host of information services that provide the basis for new businesses.

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- **Health Care:** Support electronic health technologies as a tool for managing health care costs. These investments will save lives and enhance America's competitiveness in this important and growing field. Attention to the adoption of interoperability standards and resolution of privacy concerns will greatly expand acceptance of e-health technologies.
- **Energy Infrastructure:** Support and promote increased funding of energy efficiency, including full implementation of existing mandates on energy-efficient buildings and transportation. Investing in Smart Grid technologies, plug-in hybrid electric vehicles and clean, renewable sources of energy will spur this initiative. We also need to increase our electricity reliability by upgrading our aging national transmission grid. These steps can stimulate economic activity, create jobs and ensure that our country has abundant supplies of reliable and affordable electric power.
- **Small Business:** Improve the government's ability to strengthen and nurture small businesses, the source of most U.S. job creation. The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs both have strong track records of helping new, innovative technology companies. Encouraging and strengthening programs that allow increased technology transfer from the government to private companies is needed. When coupled with a renewed investment in basic research through the America COMPETES Act, these programs will help American companies remain the most competitive and innovative in the world.
- **Signaling Long-Term Priorities:** We recommend that the administration send strong signals now in support of its long-term strategies to promote innovation, enhance our national competitiveness and energize the economy. Appointing a Special Assistant to the President for Science and Technology, naming a Chief Technology Officer, laying plans to double federal funding for basic research over 10 years, presenting an agenda for reform of the patent system and other steps that embrace S&T concerns will generate broad support and momentum that will energize the S&T community and the country as a whole. The challenges facing the incoming administration are daunting, but great opportunities exist as well. The United States is on the verge of a technological revolution in energy, health care, communications and transportation.

IEEE-USA is ready to provide whatever advice or assistance it can to the Obama administration in support of its efforts to strengthen and sustain the United States' S&T capabilities. Please contact Chris Brantley at 202-530-8349 or c.brantley@ieee.org if we can be of assistance.

Sincerely



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