



STATEMENT

By

**THE INSTITUTE OF ELECTRICAL AND ELECTRONICS
ENGINEERS-UNITED STATES OF AMERICA (IEEE-USA)**

To The

**UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE**

For The

**OVERSIGHT HEARING ON
“SCIENTIFIC AND TECHNICAL ADVICE
FOR CONGRESS”**

25 July 2006

IEEE-USA commends the House Science Committee for its foresight in holding a hearing on Scientific and Technical Advice for the U.S. Congress to examine how Congress receives advice and assessment about science, engineering and technology and whether and how the mechanisms for providing this need to be improved. There is consensus that a gap exists in the science and technology (S&T) advice and assessment information that Congress receives from various interest groups. There is a need for Congress and decision-makers to receive up to date, timely unbiased and sound advice and assessment on legislation involving the nation’s science and technology policy.

The rapid pace of technological change, coupled with technology diffusion and globalization trends, are raising profound issues for the nation’s scientific preeminence and technological competitiveness. For the United States to remain economically strong and militarily superior, our science and technology policy must be based on unbiased, balanced, and impartial advice, backed up by sound technical analysis.

Since the defunding of the Office of Technology Assessment (OTA) in 1996, three trends have reinforced the need for Congress to have a trusted resource of credible and unbiased technical analysis accomplished in a timely and efficient manner:

First, the rapid pace of technological change is exponentially expanding the number of technology-related policy issues that Congress must wrestle with. Technology impacts nearly every facet of our lives. Consider our growing dependence on cell phones and *Blackberrys* to efficiently conduct business and increase productivity. A few short years ago it was unthinkable to predict that we would be using the Global Positioning System in our cars to navigate to our destinations. Today we are using radio frequency devices to monitor the movement of products and people. This explosive growth in science and technology, fueled by the Internet and information technology, has also produced a communications revolution that has resulted in a flood of information inundating Congress.

Also, as technology has become more complex and pervasive, there is an increasing multitude of interest groups with separate agendas interpreting and communicating data to advance their respective interests. The end results are separate and sometimes totally different conclusions rendered in good faith leading to divergent and conflicting scientific and technical policies.

Technology-driven globalization trends also pose significant challenges that Congress must be prepared to understand and respond to if the United States is to remain technologically competitive and sustain our national standard of living. Other foreign competitors, such as the European Union, Japan, China and India, are moving rapidly to overtake the U.S. in many technology areas. Russia is posed to dominate the European energy markets and eventually expand globally. Congressional legislative decisions made today will impact our economic competitiveness in the global economy, our national security and our society in the decades ahead.

Science and technology policies, and their implications for the future of the American society, are complex issues. Inevitably policy choices involve painful prioritizations and trade-offs. For example, what are the ideal priorities for the nation in investing in future energy policies such as alternate fuels, nuclear power, efficient vehicles, public mass transportation and a viable national electrical power grid? Another example, is or is there not global warming, and what should or can America do about it? These are difficult issues requiring technical analysis by experts. Furthermore, the impact of the policy choices and the return on investment are often not immediately obvious until way into the future. These and other issues require investing in a basic and applied research necessary to create the technology base to resolve these complicated critical issues. In order for the United States to remain a world leader in advanced technology in the 21st century and beyond, it is critical that Congress have access to objective, timely and nonpartisan sources of science, engineering and technology-related assessment pertinent to the complex legislative issues before them.

In the recent past, legislation has been introduced in Congress to improve Congress' access to science advice and technology assessment with the support of several engineering professional organizations including the IEEE-USA. In June 2004, Congressman Rush Holt introduced H.R. 4670 to build upon the pilot project with GAO to establish a Center for Scientific and Technical Assessment. The Center would be dedicated to providing Congress with information, analysis, and advice on issues related to science and technology. We strongly supported that legislation because it would create a bipartisan organization to provide the timely and needed technical analysis and advice to Congress. We will support it again, if and when it is reintroduced.

A bill introduced in the Senate, S. 1716, in 2001 was intended to create a Science and Technology Assessment Service to provide on-going independent science and technology advice within the legislative branch of the government.

IEEE-USA applauds these efforts and their champions and strongly urges Congress to introduce and adopt similar legislation in the near future.

There is much that can and should be done to strengthen Congress' access to technology assessments in its policy process. The IEEE-USA has members who are experts in the various disciplines such as electronics, nanotechnology, electrical engineering, computer science, information technology, cyber security, medical technology, energy, transportation, and communication technology. We are non-partisan scientists and engineers who understand the implications of technology and policy choices. We stand ready to assist Congress and its members.

About IEEE-USA

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