



1 May 2006

The Honorable Sherwood Boehlert
Chairman, Committee on Science
U.S. House of Representatives
2246 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Boehlert:

On behalf of the Institute of Electrical and Electronics Engineers-United States of America (IEEE-USA), I would like to offer our strong support for your April 27, 2006 statement on U.S. energy policy. IEEE-USA concurs with your call for immediate action to reduce U.S. demand for foreign oil and to develop new technologies that can further help address our addiction to oil in the future. The United States must act vigorously, and quickly, to ameliorate its dependence on a single, expensive fuel -- gasoline -- and to unleash marketplace competition to solve the problems of excessive escalation in gasoline prices and growing dependence on the Middle East. These problems are urgent, and already impose huge costs on the US economy every day that they are allowed to continue. It is critical that we take strong steps now to move in the right direction, even though such steps will be just a start in the effort to achieve energy independence.

IEEE-USA strongly supports the use of hybrid and plug-in hybrid electric cars to help accomplish this goal. Average city mileage of these cars ranges from around 60 up to 120 miles per gallon on gasoline. (*IEEE Spectrum*, May 2005.) They use less gasoline by using more electricity, as they charge up at night, when electric power grids are underutilized. Electricity, unlike hydrogen or other alternative fuels, already offers us a complete national transmission infrastructure that is available today and large enough to accelerate America's energy independence.

We also believe that solar and other renewable electricity technologies are essential components of a diverse set of options for electric power generation in the coming decades. These technologies include the generation of electricity from sunlight, wind, geological heat ("geothermal"), and crops and organic waste ("biomass"). Our overall vision is that of a robust electric power system that emphasizes energy efficiency in supply, delivery, and end use, in which power is supplied by a diverse set of technology options, including solar and renewable energy, advanced nuclear technologies, and advanced fossil fuel technologies.

To this end, IEEE-USA supports a broad program of research and development in energy technologies, targeted at assuring an adequate, reliable, economical, and environmentally responsible supply of electricity. These steps, in and of themselves, are necessary but not sufficient for true energy security/sustainability. These measures would do more to help us move towards the reality of energy independence than any other measure previously passed in the US or elsewhere, at a lower cost – but they would only do part of the job. Expanded research and encouragement of many new technologies, especially breakthrough technologies, will also be essential – from energy sources to energy use technologies and the intelligent electric power grid needed to connect them.

IEEE-USA advances the public good and promotes the careers and public policy interests of more than 220,000 engineers, scientists and allied professionals who are U.S. members of the IEEE. IEEE-USA is part of the IEEE, the world's largest technical professional society with 360,000 members in 150 countries. For more information, please contact Bill Williams at (202) 530-8331; bill.williams@ieee.org, or go to <http://www.ieeeusa.org>.

Sincerely,

A handwritten signature in black ink that reads "Ralph W. Wyndrum, Jr." The signature is written in a cursive style with a vertical line to the right of the text.

Ralph W. Wyndrum, Jr., Eng.Sc.D.
President, IEEE-USA

RW/ww:mcs