

AN OPEN LETTER TO CONGRESS AND THE ADMINISTRATION

THE BUDGETARY THREAT TO TRANSMISSION & DISTRIBUTION RESEARCH

18 February 2004

The reliability of our nation's interconnected power grid is critical to our economy, security and the sustenance of modern life. Yet due to a variety of factors, grid reliability has not kept pace with rising demands driven by technology change, electrification, economic and population growth. Today's grid – hailed as the greatest achievement of 20th century engineering – must be modernized to meet the demands of our electricity-intensive 21st century economy. Failure to meet this challenge can only lead to more wide-area blackouts such as those that have recently affected millions of citizens and businesses in California, the Midwest and Northeast, and elsewhere. These events are symptomatic of a widely perceived decline in grid reliability. They place our nation's economy at grave risk, causing damages measured in the billions of dollars annually. Yet real physical limitations and competing land uses pose barriers to the siting of power facilities, especially in urbanized areas where demand growth is concentrated. In light of all of these factors, research into new technologies and control systems that can enhance the capacity, flexibility and efficiency of existing pathways is essential to meet our nation's growing and changing energy needs.

THE CURRENT BUDGET SITUATION

Public support for transmission & distribution research has played a critical role in advancing these new technologies through the pre-commercial stage, and enjoys strong, bipartisan support. Some of the most impressive results and advances have arisen out of government-industry joint research and partnerships. In FY 2004, the President requested funding for T&D research at the level of \$82M. Congress, in its conference report, fully supported this request. Ironically, the final outcome of the budget process has reduced available funding for base T&D research contemplated in that package by \$26M. This shortfall of resources now threatens U.S. leadership, the dissolution of successful industry/government research partnerships, and the loss of a key segment of the nation's R&D infrastructure, especially in the universities and national laboratories that support this work.

REQUESTED ACTIONS

- **Restore \$26M to the allocation for T&D research in FY 2004 consistent with the President's request as approved by Congress.**
- **Establish T&D research as a clear national priority for FY 2005 and beyond.**
- **Increase future funding for T&D research to a level commensurate with the importance of the effort required to modernize the nation's power grid.**

ACEEE

*American Council for
Energy-Efficient
Economy*

CERTS-Advisory

Board

*The Consortium for
Electric Reliability
Technology Solutions*

CCAS

*The Coalition for the
Commercial
Application of
Superconductors*

ESA

*The Electricity Storage
Association*

ESC

*The Energy Storage
Council*

EPSA

*The Electric Power
Supply Association*

IEEE-USA

*The Institute of
Electrical and
Electronics Engineers-
United States of
America*

NEMA

*The National Electrical
Manufacturers
Association*

PSERC

*The Power Systems
Engineering Research
Center*

USCHPA

*The U.S. Combined
Heat and Power
Association.*

INDIVIDUALS

*From the electric power
industry and academics
in electric power
engineering (Page 3)*

THE BUDGETARY THREAT TO TRANSMISSION & DISTRIBUTION RESEARCH

Endorsing Organizations and Individuals

ACEEE: The **American Council for an Energy-Efficient Economy** is a nonprofit organization dedicated to advancing energy efficiency as a means of promoting both economic prosperity and environmental protection. ACEEE fulfills its mission by conducting in-depth technical and policy assessments; advising policymakers and program managers; working collaboratively with businesses, public interest groups, and other organizations; organizing conferences and workshops; publishing books, conference proceedings, and reports; and educating consumers and businesses. Projects are carried out by staff and selected energy efficiency experts from universities, national laboratories, and the private sector.

CERTS – Industry Advisory Board: The **Consortium for Electric Reliability Technology Solutions** was formed in 1999 to research, develop, and disseminate new methods, tools, and technologies to protect and enhance the reliability of the U.S. electric power system and functioning of a competitive electricity market. CERTS is developing technology solutions that support competitive markets while protecting the public interest in reliable electricity service.

CCAS: The **Coalition for the Commercial Application of Superconductors** is a nonprofit organization consisting of companies, universities, national laboratories and others with a shared vision of the important role superconductivity can play in our modern world. Whether involved as manufacturers, developers, in research and training or users of these materials, CCAS members believe that commercialization of new superconductor based products will translate into significant further benefits to our nation's economy and society in a wide range of fields. The mission of CCAS is to provide a united voice on public policy issues of common interest to stakeholders in an important, emerging 21st century industry.

ESA: The **Electricity Storage Association** is an international trade association established to foster development and commercialization of energy storage technologies. Our mission is "to promote the development and commercialization of competitive and reliable energy storage delivery systems for use by electricity suppliers and their customers."

ESC: The **Energy Storage Council** promotes the development and deployment of energy storage technologies and provides the industry education and Washington representation that is essential for energy storage to penetrate the new electricity economy. The ESC believes that energy storage will become the "sixth dimension" of the electricity value chain following fuels/energy sources, generation, transmission, delivery, and customer energy services.

EPSA: The **Electric Power Supply Association** is the national trade association representing competitive power suppliers, including independent power producers, merchant generators and power marketers. These suppliers, who account for more than a third of the nation's installed generating capacity, provide reliable and competitively priced electricity from environmentally responsible facilities serving global power markets. EPSA seeks to bring the benefits of competition to all power customers.

IEEE-USA: IEEE-USA is an organizational unit of **The Institute of Electrical and Electronics Engineers, Inc.**, created in 1973 to advance the public good, while promoting the careers and public-policy interests of the more than 225,000 electrical, electronics, computer and software engineers who are U.S. members of the IEEE. The IEEE is the world's largest technical professional society.

NEMA: The **National Electrical Manufacturers Association** is the leading trade association in the United States representing the interests of electro-industry manufacturers. Founded in 1926 and headquartered near Washington, D.C., its 400 member companies manufacture products used in the generation, transmission and distribution, control, and end-use of electricity. Domestic annual shipments of electrical products within the NEMA scope exceed \$100 billion.

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PSERC: The **Power Systems Engineering Research Center** was formed to help address challenges created by the evolving electric power industry. Thirteen U.S. universities, with about forty researchers, work collaboratively with some forty industry members to: engage in forward-thinking about future scenarios for the industry and the challenges that might arise from them; conduct research for innovative solutions to these challenges using multidisciplinary research expertise in a unique multi-campus work environment; facilitate interchange of ideas and collaboration among academia, industry and government on critical industry issues; and educate the next generation of power industry engineers. PSERC is a National Science Foundation Industry/University Cooperative Research Center.

USCHPA: The **U.S. Combined Heat and Power Association** brings together diverse market interests to promote the growth of clean, efficient CHP in the United States. CHP not only cuts fuel consumption and emissions per unit of useful output, but provides downstream power supply to relieve grid constraints, reduces the need for new transmission and distribution investment and impacts, and improves power quality and reliability for the user. USCHPA is a private, non-profit association, formed in 1999 to promote the merits of CHP and achieve public policy support.

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