



NORTH AMERICAN ENERGY STANDARDS BOARD

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email: naesb@naesb.org • Web Site Address: www.naesb.org

March 25, 2009
Via post and email

The Honorable Steven Chu
Secretary of Energy
U. S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Secretary Chu,

Congratulations on your appointment to serve as the 12th Secretary of the U.S. Department of Energy. The North American Energy Standards Board (NAESB, formerly the Gas Industry Standards Board or GISB) has a long standing successful public-private partnership with the Department, and looks forward to working collaboratively, particularly with the many challenges ahead in the implementation of smart grid applications to revitalize America's electric infrastructure.

NAESB develops business practices to support the introduction of new services into the electric marketplace, complement the reliability standards set by the North American Electric Reliability Council and support the implementation of policies set by the Federal Energy Regulatory Commission. We follow with interest the development of smart grid technologies and applications, since these applications affect the business practices and the commercial market for electricity

The successful collaboration between the Department and NAESB, spans activities that include surety assessments, gas-electric coordination issues and the adoption of standardized contracts -- all to the benefit of the energy marketplace --and may be applied to the implementation of smart grid technologies. The enclosed briefing paper describes our organization and explains the relationship between NAESB and the implementation of smart grid applications. Once the needed standards are developed, a smarter grid will efficiently enable an increased level of service in an era of rising costs, while ensuring numerous other societal benefits.

We look forward to meeting with you and your senior staff to discuss the enclosed NAESB briefing paper and how NAESB, as the business practices standards organization, may collaborate with your agency to achieve the full implementation of a smart grid. Should your staff need additional background information, including recent NAESB standardization efforts, please contact our office (713-356-0060).

With Best Regards,

Michael D. Desselle, Chairman, NAESB

Rae McQuade, President, NAESB

Vicky A. Bailey
President, Anderson Stratton International
Assistant Secretary of Energy, 2001-2004
Commissioner, FERC, 1993-2000
Commissioner, Indiana PUC, 1986-1993

Robert W. Gee
President & Founder, Gee Strategies Group LLC
Assistant Secretary of Energy, 1997-2000
Commissioner, Texas PUC, 1991-1997 (Chairman, 1995-1997)

Michehl R. Gent
OATI
President, North American Electric Reliability Council, 1982-2005



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cc: James R. O'Connor, U.S. Department of Energy

The Honorable Jon Wellinghoff, Chairman, Federal Energy Regulatory Commission
The Honorable Suedeem G. Kelly, Commissioner, Federal Energy Regulatory Commission
The Honorable Philip D. Moeller, Commissioner, Federal Energy Regulatory Commission
The Honorable Marc Spitzer, Commissioner, Federal Energy Regulatory Commission

Dr. Peter Gallagher, Deputy Director, National Institute of Standards and Technology

The Honorable Otto J. Wolff, Acting Secretary, U.S. Department of Commerce



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BRIEFING PAPER ON NAESB AND SMART GRID APPLICATIONS

Purpose of NAESB:

The North American Energy Standards Board (NAESB) sets voluntary standards for the business practices and communications protocols governing wholesale and retail natural gas and electric markets. The NAESB standards are developed to assist the natural gas and electric industry in improving customer service, enhancing and supporting the reliability of service through complementary commercial standards, and increasing the competitiveness and efficiency of the markets. NAESB is accredited by the American National Standards Institute (ANSI) as a Standards Development Organization and has held such accreditation since its inception. NAESB's wholesale electric and natural gas standards have been recognized and adopted by the Federal Energy Regulatory Commission (FERC) as regulations and its retail model business practices and communication protocols have been adopted by several state regulatory commissions.

NAESB has over 300 corporate members, but many more companies participate in its development activities, since any interested party can participate in and vote on the drafting of NAESB standards, regardless of membership status. Members include Mexican and Canadian corporations, and over 18 countries have followed standards adopted by NAESB or its predecessor organization, the Gas Industry Standards Board (GISB).

NAESB provides a forum in which all market participants can determine standards needed to improve market efficiency and robustness, support new products and services, and implement policies set by regulatory bodies and other government agencies. The barriers to standards development are broken down through the inclusivity built into the framework of NAESB, its support of partnerships, joint programs and the support of industry leaders. NAESB has developed over 600 wholesale natural gas standards covering business transactions ranging from contracting for the purchase and sale of natural gas to nomination and scheduling of gas transportation, gas measurement, and accounting. It has developed more than 600 standards to support the Open Access Same-Time Information System (OASIS) of the electric grid and another 300 to support other wholesale electric market functions, including complementary market-based standards to support electric reliability standards developed by the North American Electric Reliability Corporation (NERC). NAESB's open and transparent procedures allow for appeals of standards and ensure their development, documentation, publication, maintenance, and interpretation.

The U.S. Department of Energy (DoE), a strong champion and advocate for GISB and NAESB, played a pivotal role in the establishment of both organizations. Indeed, the Department has been a dues-paying member since the organizations' inception. To further demonstrate the support of the Department for NAESB, the DoE provided financial grants to Sandia National Laboratory for two independent surety assessments of the GISB (now NAESB) Internet electronic delivery mechanism related standards. In 1999, The Sandia National Laboratory Information Design Assurance Red Team (IDART) conducted the comprehensive analysis and assessment of the GISB process.



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GISB incorporated the 36 recommendations from the Sandia findings to enhance the integrity the GISB electronic delivery mechanism. Additionally, in 2006, Sandia conducted a surety assessment for the NAESB wholesale and retail natural gas and electric market standards. All recommendations from the 2006 Sandia findings in the second assessment were adopted by NAESB and incorporated into the standards, now in use. One does not need to look any further than the NAESB web sites and the critical information that is transmitted through the NAESB Internet electronic delivery mechanism protocol to appreciate the value and potential vulnerability of our new smart grid digital economy.

GISB, founded in 1992, received the Appreciation of Service Award from Energy Secretary Bill Richardson in 2000, and Ms. Rae McQuade, President, NAESB, was appointed to the National Petroleum Council by Energy Secretary Samuel Bodman in 2008. The public-private partnership between NAESB, DoE, and the FERC that has been a key factor in NAESB's success has expanded to include state commissions, other energy associations, and international bodies.

Benefits of NAESB to the Market

It is difficult to imagine the natural gas and electric markets without uniform business practices, or an effective organization to oversee the development of the required business practices. However, before 1992, there were no groups developing commercial standards and uniform business rules to support the markets. With the advent of a more open market for natural gas and electricity, and the FERC Order No. 636, known as the Restructuring Rule, that was designed to fundamentally change the way pipeline companies conduct business, the need for uniform business practices and communication protocols became apparent and GISB, and then NAESB were formed as a result. The standards developed by GISB and NAESB, and then accepted by the FERC, brought predictability, efficiency, transparency and transactional savings both in resources and time – providing a more robust environment for the electric and natural gas markets.

NAESB's value to the energy marketplace is best exemplified by its contract for the short-term sale of natural gas. An estimated 19 TCF of the gas sold in the United States each year moves under the NAESB gas contract. Taking into account the savings resulting from reduced time spent on legal review, increased liquidity, avoidance of litigation, and the ability to transact purchases and sales much more efficiently, industry executives have estimated the savings at \$20 billion dollars over the ten years of use of the NAESB gas contract or ten cents per MCF in the commodity price of natural gas over the years of use of the contract – which is ultimately passed on to the customer.



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Dependency of Smart Grid Actions on NAESB Standards

NAESB develops and maintains the standards for OASIS, which addresses, under policies directed by the FERC, the electronic communications of critical business transactions for all entities using the electric grid. State energy efficiency programs, regulatory requirements for use of lowest-priced goods and services, demand response, greenhouse gas cap-and-trade programs, and the introduction of wind and other intermittent sources of renewable energy will require the support of new NAESB standards as policies are determined at the state and federal level. NAESB recently completed a set of demand response measurement and verification standards for use in the wholesale electric market. Similar retail electric standards are in development and have been coordinated with the efforts to support the wholesale market. Standards to support energy efficiency and renewable energy are in the planning stage. Electricity Delivery and Energy Reliability “smart grid” programs mandated by the American Recovery and Reinvestment Act will require the immediate need for NAESB smart-grid standards.

Conclusions

NAESB requests that the Department’s Office of Electricity Delivery and Energy Reliability Funding Opportunity Announcement (FOA) under the American Recovery and Reinvestment Act to modernize the electric grid provide grants to organizations for the adaptation of existing OASIS standards and for the development of new standards to support the timely enhancement of the smart grid.

NAESB is the only ANSI-accredited standards organization whose mission includes the administration, development and support of OASIS standards on electronic scheduling of wholesale electricity across the national grid and the development of commercial business practice standards to complement the electric reliability standards developed by NERC. NAESB’s open and transparent procedures, proven by widespread natural gas and electric industry acceptance since the organization’s founding in 1992, have helped promote efficiency and integrity in energy markets.

NAESB’s financial support comes primarily from membership dues, and NAESB will continue to develop and support business practices for the wholesale and retail electric market, including those needed for smart-grid applications. However, a grant from the Department of Energy to NAESB for the development of business standards to support the deployment of smart grid technologies will expedite the revitalization of America’s electric infrastructure and the challenges of the digital economy.