

Beneficial NEMA Provisions in Energy Bill

The Energy Policy Act of 2005 includes numerous provisions that benefit NEMA members. A summary of these and their benefits to members is provided below.

Energy Policy Provisions

- Cost effective energy efficiency standards based on industry consensus standards for exit signs, torchiere fixtures, LED traffic signals, compact fluorescent lamps, mercury vapor lamp ballasts, energy saving fluorescent ballasts, and low voltage distribution transformers. This includes CFL testing based on Energy Star, which is less costly than DOE EPartesting.
 - These standards are based on Energy Star® specifications and would make this top 25% efficiency the requirement for all products sold
 - The transformer standard would cut in half the energy use by new commercial building transformers
 - The traffic signals required use solid state lighting technology that, besides saving energy, increases the reliability and lifetime of signal lamps, and enables them to be battery backup powered for critical intersections during power outages
 - The mercury vapor lamp ballast requirement takes the form of a ban on manufacturing or importing after January 1, 2008
- Strong federal preemption over legislated state efficiency standards
 - Many states are pursuing product efficiency standards in legislation. Costs to manufacturers and consumers are increased by unique state standards
 - The energy bill preempts future state legislated standards for the products for which standards are set in the legislation. Many of the NEMA products in the bill are the subject of potential state legislation, so this provision is very valuable to NEMA members
- Increased goals for federal energy efficiency including federal building requirements that meet ASHRAE 90.1-2004 standards
 - The federal government is the nation's largest energy user and, as such a major market
 - These very high building efficiency standards can only be met with high margin products
- Requirement for metering and sub-metering for Federal facilities with real-time metering to reduce energy consumption and costs
 - This establishes a market for advanced meters at the nation's largest energy market
 - One-hour consumption measurement and one-day reporting are required
- Requirement for DOE to encourage standards for state government buildings and to provide grants for building that exceed IECC 2003 by 30%
 - The intent is to expand the very high standards from federal to state buildings, a substantial increase

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- Requirement for federal government to purchase energy efficient products, including mandatory purchases of [NEMA Premium™ Motors](#), and Energy Star® or Federal Energy Management Program (FEMP) designated products
 - These products are typically in the top 25% of energy efficiency and high margin
 - NEMA Premium™ is a collaborative standard for high efficiency motors that was developed by electrical manufacturers, electric utilities, and energy efficiency groups. This standard is advocated by many states, as well
 - Besides directly saving energy in federal facilities, federal purchases would help in “market transformation” into a product market where these high efficiency products are the norm
- Statutory authority for Energy Star® program
 - This should increase the stakeholder input and standing in making Energy Star® decisions
- Extension of energy savings performance contracts program
 - This program enables government agencies to use energy savings to pay for efficiency upgrades, saving energy and preserving scarce program funds.
 - Some NEMA members are major contractors for projects in this program and numerous manufacturers benefit from increased product sales

Research and Development Provisions

- Energy Efficiency
 - Included is technology for new construction or retrofit of buildings. Also included is advanced motor controls.
- Next Generation Lighting Initiative
 - NEMA manages the Industry Alliance.
- National Building Performance Initiative
 - Includes building automation systems.
- Secondary Electric Vehicle Battery Use Program
 - NEMA’s battery section members and UPS manufacturers should be interested in this program that seeks new applications for batteries developed for vehicles.
- Advanced Energy Efficiency Technology Transfer Centers
 - NEMA could potentially manage one or more of these showcases for technology. Manufacturers are specifically mentioned as stakeholders that should be part of an advisory committee.
- Distributed Energy and Electric Energy Systems
 - This authorizes funding for distributed energy systems and high voltage transmission lines.

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- Electric Transmission and Distribution Programs
 - Includes advanced T&D technologies that enhance reliability, operational flexibility, or power-carrying capability; demand response; metering, enhance existing grid components; high temperature superconductors; and advanced grid tools for operation and planning.
 - This section also includes a Power Delivery Research Initiative to develop facilities with manufacturers to test components incorporating high temperature superconductors.
- Solid State Lighting
 - This is the research program supporting the Next Generation Lighting Initiative.

Transmission and Distribution/Distributed Power Policy Provisions

- Federal eminent domain transmission siting for national interest electric transmission corridors
 - Currently states have permitting authority and often have no incentive (or may have statutory disincentives) to approve siting for lines that do not significantly benefit their state
 - Federal siting would get lines built where states do not have the incentive
- Requirement for FERC to issue a rule providing incentive based rates for interstate transmission
 - In areas where transmission congestion is prevalent, rate incentives to improve service can actually reduce costs to customers, as well as incenting line construction and upgrades
 - The legislation would also require FERC to encourage the deployment of advanced transmission technologies, including superconducting lines, high capacity conductor technologies, FACTS, etc.
- Establishment of an Advanced Power System Technology Incentive Program
 - DOE is authorized to establish a program to support the deployment of advanced power system technologies.
 - While the program requires appropriated funds to be operational, it provides another potential incentive for advanced technologies, including fuel cells, turbines or hybrid power systems or power storage systems used to generate or store electricity.
- Mandatory and enforceable transmission reliability standards
 - Currently compliance with reliability standards is voluntary and utilities may fail to make investments that are required to assure a robust electric grid
 - Making the rules enforceable should increase compliance and attention to the grid, with a resulting increase in investment

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- Requirement for states to consider a standard for smart metering
 - States and unregulated municipal utilities that have not already addressed the issue would be required to consider implementing a requirement that utilities offer time based rate schedules and provide the necessary meters; third party marketers selling in a state would also face the requirement to provide meters
 - If states adopt the proposed Federal smart metering standard, increased demand for advanced meters should result
- Requirement for states to consider a standard for net metering for on-site generation
 - States and unregulated municipal utilities that have not already addressed the issue would be required to consider implementing a requirement that utilities make net metering available to any electric consumer.
 - If states adopt a net metering requirement, increased demand for advanced meters should result.
- Requirements for utilities to offer generator interconnection in accordance with IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems.
 - This should increase the market for distributed power systems and components

Tax Provisions

- Tax deduction for efficient commercial property
 - A deduction of \$1.80 per square foot for property 50% more efficient than a building designed to ASHRAE/IESNA standard 90.1-2001 (benefits lighting, HVAC systems, building envelope)
 - An additional high efficiency lighting provision of up to \$0.60 per square foot is permitted until such time as DOE and IRS promulgate regulations on how to handle individual systems that achieve the 50% reduction for the overall building
 - The provision would sunset on December 31, 2007
- Reduction of the 20-year electric transmission asset tax life to 15 years
 - New electric transmission property contracted for and placed in service after April 11, 2005 would be treated as 15-year property for depreciation purposes, rather than 20-year property, thereby (along with favorable rate treatment) incenting development.
 - The reduced life would be available for new lines, upgrades to existing lines, or capital improvements to existing lines.
- Extension of the wind production tax credit
 - Extends for two years the tax credit under section 45 of the Internal Revenue Code for production of electricity from wind and closed loop biomass
 - Extends the credit to open-loop biomass (including agricultural waste and wood nutrients), solar and geothermal energy, small irrigation power, municipal solid waste and landfill gas