

## Beneficial NEMA Provisions in Energy Bill

The House and Senate in the 109<sup>th</sup> Congress are working on their respective provisions for an energy bill. The House/Senate Conference Committee energy bill (HR 6, November 2003) 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, and low voltage distribution transformers. This includes transformer testing based on TP-2, which is less costly than the DOE proposed testing and CFL testing based on Energy Star, which is less costly than DOE EPCAct testing.
  - These standards are based on current Energy Star® specifications and would make this current 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
- 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 beat ASHRAE 90.1-2001 standards by 30 percent
  - 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 based on ASHRAE 90.1-2001 and IECC 2003
  - 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 and expansion to include replacement facilities
  - 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

- A Next Generation Lighting Initiative with NEMA’s industry alliance language to provide for R&D for advanced lighting
  - An R&D program for white light LEDs/OLEDs is authorized with annual funding potential in the tens of millions of dollars; FY05 level is \$12.7 million.
- \$10 million per year for 5 years available for a new “Energy Efficient Buildings Pilot Grant Program” for grants to businesses and organizations for design and construction of energy efficient buildings or renovations to existing buildings
  - Not in HR 6, but included as a new provision in HR 610 passed by the House Science Committee in February 2005
- Department of Energy buildings research program to promote advanced controls, including occupancy sensors and daylighting
  - Language part of a DOE program aimed at R&D in commercial building design and construction
- \$6 million for energy efficient electric motor research for appliance applications

### Transmission and Distribution/Distributed Power Policy Provisions

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- 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 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
- Establishment of an Office of Electric Transmission and Distribution
  - A high level office in DOE has been established to be responsible for T&D, as well as distributed generation integration with T&D.
  - Previously, T&D had been under Energy Efficiency and Renewable Energy and may not have received the level of attention deserved at the Department
- 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

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- 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.

### Tax Provisions

- Tax deduction for efficient commercial property
  - A deduction of \$1.50 (started at \$2.25) per square foot for property 50% more efficient than a building designed to ASHRAE/IESNA standard 90.1-2001
  - An additional high efficiency lighting provision of up to \$0.50 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 (provision initially 10-year life)
- Reduction of the 20-year electric transmission asset tax life to 15 years
  - New electric transmission property placed in service after the date of enactment 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.
- Revision of tax life to 3 years for electric meters used for energy management
  - This provision establishes a short tax life to incent installation of smart meters
  - Other provisions in the energy bill (meters for federal facilities, PURPA provisions for smart meters and time of use rates) also incent the installation of smart meters
- Tax incentives for combined heat & power property
  - Plants 15MW or less are provided with a 10% energy credit
- Extension of the wind production tax credit
  - Extends for three years the tax credit under section 45 of the Internal Revenue Code for production of electricity from wind and closed loop biomass (available for facilities placed in service before January 1, 2007)
  - 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
  - Credit would be available for these resources for facilities placed in service after the date of enactment and before January 1, 2007

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- A new advanced nuclear plant 1.8 cents per kWh production tax credit intended to spur the construction of new nuclear power plants
  - Units must be designs approved by the Nuclear Regulatory Commission after the date of enactment
  
- Clean coal technology credits
  - A 15% tax credit is provided for clean coal technology units and 17.5% for advanced CCT units.