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Written Testimony of

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on the

National Energy Efficiency Enhancement Act of 2010, S. 3059

March 10, 2010

Before the

Committee on Energy and Natural Resources

United States Senate

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Chairman Bingaman, Ranking Member Murkowski, and members of the committee, my name is Kyle Pitsor. I am Vice President of Government Relations for the National Electrical Manufacturers Association (NEMA). I appreciate this opportunity to testify on the importance of this significant legislation before the Committee.

NEMA is the trade association of choice for the electrical manufacturing industry. It represents a global network of more than 400 large, medium, and small businesses that manufacture products used in the transmission, distribution, control, and end-use of electricity, including the lighting technologies. For more than eight decades, NEMA has been at the center of developing electrical standards, promoting electrical safety, and providing solutions to our country's energy challenges.

It is my pleasure to provide our support for S. 3059, the National Energy Efficiency Enhancement Act of 2010, particularly Section 6, Outdoor Lighting. This ground-breaking consensus provision will, for the first time ever, set federal efficiency standards for pole-mounted outdoor lighting.

In a 2007 Department of Energy report, it was estimated that outdoor lighting consumes more than 178 terawatt-hours annually. This is equivalent to the annual output of 25 nuclear power plants (1000 MW each) or 42 coal-burning plants (600 MW each).

Because of the significant energy utilized by outdoor lighting, lighting manufacturers, lighting designers, environmental advocates and other stakeholders have spent countless hours over the past year negotiating the details specified in the outdoor lighting provision contained in this legislation. Back on March 19, 2009, I testified for NEMA before this Committee noting that we felt the time was ripe for the establishment of national energy efficiency standards for outdoor lighting products, and noted that we hoped that a consensus proposal could be negotiated for Congressional consideration. I am therefore pleased to sit before you today to report that despite the complexities surrounding this provision and the varying stakeholder interests, including doubts by some that a consensus could be arrived at, that Section 6 on outdoor lighting is a win-win consensus provision.

Section 6 would set efficiency standards for the majority of pole-mounted outdoor lighting fixtures. To better understand the widespread impact of this agreement, as you drive home today, look at the tall street and parking lot lights illuminating the roadways, parking lots, and local streets; each of these lights will be affected, on a national level, as the result of this ground-breaking consensus.

Because of the multifaceted nature of this agreement, the standards set forth require three phases, or "tiers" for respective efficiency levels.

Three years from the enactment date of this provision, Tier 1 will become effective. In this phase, light source efficiency, expressed as minimum task lumen per watts (LPW), will be mandated. These LPW levels are based on specific lighting characteristics, such as backlight, up-light, and glare (BUG) ratings, which limit sky-glow and light trespass into neighboring properties.

Tier 2 standards will be established by the Department of Energy (DOE). Such standards must be published in a final rule by DOE no later than January 1, 2013, or 33 months after enactment, whichever is later. The requirements for Tier 2 become effective January 1, 2016, or 3 years after the final rule is published.

Finally, the Tier 3 standards will be established by DOE in a rulemaking beginning January 1, 2015. Tier 3 standards are only set if the DOE determines amended standards are necessary. If DOE determines in favor of setting Tier 3 standards, a final rule must be published by January 1, 2018, with an effective of January 1, 2021.

In addition to the tiered standards, this legislation regulates the efficiency of two types of lamps that are primarily used outdoors. After January 1, 2016, high output double-ended quartz halogen lamps (a type of high-wattage incandescent lamp) must have a minimum efficiency of 27 LPW for lamps with a minimum rated initial lumen value of 6,000 and a maximum initial lumen value of 15,000. Also, 34 LPW is required for lamps rated with initial lumen value greater than 15,000 and less than 40,000.

I earlier mentioned the significant energy used in outdoor lighting. Should this provision be enacted, it is estimated that by 2030, the annual savings will range from 25 to 42 terawatt hours (billion kWh) per year (equivalent to 3 to 6 nuclear power plants or 6 to 10 coal-fired plants)—and annual savings of $2.8 billion to $5.1 billion on energy costs.

I would now like to turn to several other provisions in the legislation.

First, NEMA supports the provisions in Section 4, which clarifies efficiency standards for Class A external power supplies for certain security or life safety alarms. NEMA's signaling, protection, and communications member companies have participated in addressing these standards and their application to security alarm applications.

Second, NEMA supports the amendments proposed to the Energy Policy and Conservation Act (EPCA) contained in Section 5 on "Prohibited Acts." We believe it is important that channel partners in the distribution and sale of federally-regulated products share responsibility in making certain that consumers and end-users receive the benefit from purchasing energy-efficient products and equipment that meet federal minimum efficiency standards. Today, EPCA places that responsibility only on manufacturers and private labelers, which creates a loophole when it comes to compliance in the marketplace. The

proposed language would ensure that all players in the manufacturing, sales, and distribution channels have a responsibility.

Finally, I would like to touch upon Smart Grid (Section 7). The inclusion of Smart Grid considerations in the energy conservation title recognizes the role and potential of logic-based intelligence in efficiency. Many devices today are approaching their theoretical maximum efficiency – large motors and distribution transformers, for example, are often 95 to 99 percent efficient. The next realm of conservation will come from "smart" devices that are communication-enabled and provide real-time cost and performance information to the end-user. Providing for consideration of "smart" attributes in future energy efficiency standards will also support our industry's efforts in innovation and design for the next generation of products. Attached to my testimony are several suggestions for modifications to the provision to take into account the Smart Grid standards work that is being managed by the National Institute of Standards and Technology (NIST) pursuant to Title 13 of the Energy Independence and Security Act of 2007. We would be pleased to discuss these suggestions with the Committee as the bill is considered.

Mr. Chairman, NEMA members are excited about the innovation possibilities and energy efficiency opportunities this legislation will support. Our members are leaders in providing energy-efficient solutions to meet our nation's energy challenges through our continuous research and development into new products and technological features. I am pleased to lend our support for this legislation and the leadership shown by you and your colleagues in advancing this bill.

Thank you, and I would be pleased to respond to any questions.

Proposed Language to Section 7 on Smart Grid:

Since “smart” end-use appliances and equipment can interact with the grid in unexpected ways, NEMA suggests that DOE consult with NIST, who is charged by Congress in coordinating Smart Grid communications standards development. Potential specific references to EISA 2007:

> Page 64 Line 8 ‘‘(7) INCORPORATION OF SMART GRID TECHNOLOGIES.—The Secretary**, in consultation with the Director of the National Institute of Standards and Technology,** may incorporate smart grid technologies or capabilities into standards under this section, including through—
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> Page 65 Line 4 ‘‘(ii) other smart grid goals**, including those as specified in Sec. 1301 of the Energy Independence and Security Act of 2007 (15 USC 17381)**.’’.