

NATIONAL ENERGY ISSUES TO WATCH:

1. **Global Market for Light-Emitting Diodes for Lighting Applications to be Worth \$8.2 Billion in 2014** - According to a new technical market research report, Light-Emitting Diodes For Lighting Applications from BCC Research, the global market for LEDs is an estimated \$5.4 billion in 2009, but is expected to increase to \$8.2 billion in 2014, for a 5-year compound annual growth rate (CAGR) of 8.7 % http://www.ledjournal.com/eNewsletters/2010/led_newsletter_02-10.htm#12

2. **Total DOE Funding for 17 SSL Projects is Nearly \$37.8 Million** - The DOE has announced the competitive selection of 17 projects for solid-state lighting (SSL) under the ARRA, in response to the SSL Core Technology Funding Opportunity Announcement (FOA) DE-FOA-0000082 (Round 6), Product Development FOA DE-FOA-0000055 (Round 6), and U.S. Manufacturing FOA DE-FOA-0000057(Round 1). A major DOE objective in funding these projects is to develop, establish, and/or maintain the SSL technology and manufacturing base within the U.S., which will create jobs and promote our nation's role as a leader in the field. For more information on the selections, visit the DOE SSL website at www.ssl.energy.gov

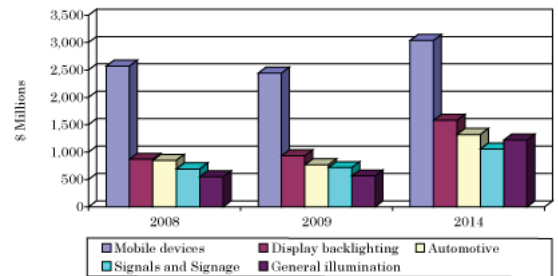
3. **NAHB: Stage Is Set for Recovery** - From the International Builders' Show in Las Vegas, the National Association of Home Builders released its 2010 residential construction forecast. The association is forecasting 697,000 total housing starts in 2010. The estimate, if correct, would be the second lowest annual housing start figure, but would mark a 25.9% increase over the 2009 mark of 553,800. The NAHB forecast expects the recovery to take place in the single-family sector, where starts are predicted to rise 37.7% from 443,000 in 2009 to 610,000 in 2010. Multi-family starts are expected to decline about 23% to 87,000 -- a result of "an acute shortage of available financing," according to the NAHB. 01/20 HCN

4. **CALIPER Program Developments Planned for 2010 from Jim Brodrick postings@lightingfacts.com** -

- As the number of products listed on the Lighting FactsCM website continues to grow rapidly, DOE will selectively monitor them through a new quality assurance program to verify the accuracy of the performance claims. This step is designed to protect the integrity of the Lighting Facts label and program, and manufacturers will be notified if the test results indicate any discrepancies in performance claims, compared to the data originally provided to DOE.
- The Quality Advocates working group on SSL reliability and lifetime is close to publishing a set of guidelines on that knotty subject
- DOE Municipal Solid-State Street Lighting Consortium to launch a new forum to share information and experiences related to LED street lighting demonstrations. Municipalities, utilities, and energy efficiency organizations will soon be invited to join the consortium, share questions and answers, and tap into a growing body of information on LED street lights.
- DOE plans to launch several new SSL training initiatives this year. The intention is to expand the awareness and understanding of SSL across the entire lighting industry chain, and especially to segments that know the least about it. One of the new education initiatives involves working with large retailers and distributors to provide direction on LED product development and selection, as well as messaging and support for consumer education.

5. **Survey Shows Big Gap between Awareness and Adoption of Green Lighting Technology** - The second annual Sylvania Socket Survey reveals a paradox in Americans' attitudes toward lighting — although 74% have switched to an energy-saving light bulb in the past year, the majority is not aware of the impending federal phase-out of incandescent lamps, starting in 2012 with the 100W bulb. <http://ecmweb.com/lighting/green-lighting-technology-20100121/>

SUMMARY FIGURE
VALUE OF GLOBAL LED SHIPMENTS BY INDUSTRY, 2008-2014
(\$ MILLIONS)



Source: BCC Research

6. **Obama Pushes Energy Plan That GOP May Support** - Looking for a political and policy victory, President Barack Obama on Thursday pushed energy proposals designed to attract allies and opponents alike, calling for increased ethanol production and new technology to limit pollution from the use of coal. Facing a Senate with a newly energized Republican minority, Obama has begun tailoring his energy policy to GOP-supported ideas, starting in his State of the Union address last week with calls for offshore oil drilling opposed by environmentalists and a bigger role for nuclear power. 02/03 AP

7. **Energy Firms to Get Tax Credits** - The stimulus package, known officially as the American Recovery and Reinvestment Act, is contributing \$2.3 billion in tax credits for the clean energy and efficiency effort. The program will offer the 30 percent tax credits to 183 projects in 43 states. 01/12 Tulsa World

8. **The New American Home to Incorporate Energy-Saving Technologies** - The National Council of the Housing Industry and Builder Magazine have unveiled the design of the 2010 edition of The New American Home, which aims to use 72% less energy than a similar house built to the 2006 International Energy Conservation Code. The New American Home provides an annual real-world demonstration of current innovations in architecture, construction techniques, and new products, including the latest energy-saving technologies. The design for this year's structure features an energy efficient thermal shell, including insulated concrete forms for the walls, energy efficient windows and sliding glass doors, and an unvented attic with spray foam insulation applied to the underside of the roof and the inside of the gables. The building is also meant to be airtight, and it employs a heat recovery ventilator to provide fresh outdoor air with a minimal loss of energy. With a solar thermal hot water system, Energy Star-rated appliances, and 80% of all hard-wired lamps comprised of fluorescent lamps and LEDs <http://www.buildersshow.com/generic.aspx?sectionID=1842>

STATE ENERGY ISSUES TO WATCH:

1. **Federal Funding Awarded for 'Green' Job Training** - The assistance is part of nearly \$190 million in federal stimulus being awarded to states. The idea is to teach skills required for industries such as energy efficiency and renewable power. 01/21 McClatchy-Tribune Regional News

- \$6 million set for green training in Oklahoma
- Alabama gets \$6 million for energy job training
- New Mexico awarded nearly \$6 million to create training programs
- Indiana lands \$6 million green jobs grant
- Feds offer \$4.4 million labor grants for Wyoming
- Maryland will get nearly \$6 million
- \$6 million to support green jobs in Washington
- Connecticut receives \$3 million for green job training
- \$6 million slated for Iowa job training
- West Virginia. to get \$6 million for clean energy jobs
- North Carolina counties get \$5.9 million to train for 'green' jobs
- South Dakota labor officials net \$2.5 million federal grant
- Feds give Hawaii \$6 million green jobs training grant
- Kansas awarded a \$6 million grant to train workers
- Utah to receive \$4.6 million in federal job grants

2. **EPA and DOE Join States to Speed Energy Efficiency Progress in the United States** - As part of the Obama Administration's commitment to increasing energy efficiency and reducing costs, the EPA and the DOE announced today the creation of the State Energy Efficiency (SEE) Action Network. This network is meant to help states achieve maximum cost effective energy efficiency improvements in homes, offices, buildings and industry by 2020. More information on the SEE Action Network: <http://www.epa.gov/cleanenergy/energy-programs/seeaction/index.html> More on reports and tools for states advancing energy efficiency: <http://www.epa.gov/eeactionplan>

- 3. Massachusetts Proposes Ambitious Energy Efficiency Plans** - The state of Massachusetts on Friday announced ambitious energy efficiency plans for utilities that aim to triple the electricity conservation of previous plans and save utility customers \$6 billion by 2012. The plans were developed after the Green Communities Act of 2008 required electric and gas utilities to guarantee customers access to any resource that increases energy efficiency or reduces demand and also costs less than new energy supply. The Energy Efficiency Advisory Council, which included various energy, business and environmental interests, including Environment Northeast, developed the program over more than two dozen meetings. The utilities will invest about \$2.2 billion in efficiency programs during the next three years. Utilities will pass on at least half of the costs to consumers but that will be made up by the projected \$6 billion savings 01/29 AP
- 4. PPL Has a Bright Idea to Help Consumers Save on Power** - If you're a PPL Electric Utilities customer sweating that 30 percent hike to your bill this year, the company wants to throw you a bone. Or at least a discount on some energy-efficient light bulbs. The Allentown, PA energy company today is launching a program to encourage energy conservation by offering discounts on CFLs. From 9 a.m. to 5 p.m. today, the company is offering a buy-one-get-one free deal on 14-watt compact fluorescent bulbs at the Home Depot at 1951 Glenwood St., Allentown. Otherwise, discounts on the bulbs will be available on an ongoing basis at more than 540 retail locations in the PPL service area. A complete list of participating retailers and details about recycling the bulbs is at <http://www.pplelectric.com/e-power> PPL will charge customers \$246 million over four years to implement the energy conservation programs. The charge will be passed on to customers through their monthly bills. The typical residential customer will pay an extra \$24 a year to pay for the conservation plan. 01/30 The Morning Call
- 5. 'Energy Star' Rebate Program Set to Start** - The program begins Feb. 12, and rebates will be available on a first-come, first-served basis until the \$8.6 million set aside for rebates is used up, the Georgia Environmental Facilities Authority announced. Georgia residents can get rebates on multiple appliances, though there are several rules, and the maximum rebate per household is \$1,200, according to the authority. www.GeorgiaRebate.com 01/30 The Macon Telegraph
- 6. Rebates Available on Energy-Efficient Appliances** - The Illinois Energy Star Appliance Rebate Program starts Jan. 31. Rebates will be available on water heaters and heating and cooling equipment. From April 16 to 25, consumers can receive a 15 percent rebate when they buy energy-efficient appliances at participating retailers. Consumers who recycle old appliances can receive an additional rebate. The state of Illinois is to receive nearly \$12.4 million in federal stimulus money for the program. 01/20 AP
- 7. PUD to Hand Out 41,000 Light Bulbs** - The Chelan County, WA PUD just bought 41,000 CFLs -- and they're going to give them away. Utility staffers will hand most of them out for free to county residents during community events and at nursing homes and assisted-living centers. The giveaway, which will cost almost \$60,000 this year, will earn the utility credit toward the state's conservation quotas and save electricity. The PUD this year will participate in a regional program that allows utilities to provide cash so local retailers can sell CFLs for lower costs. Qualifying bulbs include dimmable, 3-way, candelabra and flood-lamps sold at Albertsons, Bed Bath and Beyond, Bi-Mart, Costco, Fred Meyer, Top Foods, Home Depot, Lowe's, Platt Electric and Walmart. The price the customer pays at the store has already been marked down, taking this subsidy into account. The giveaway and subsidy are part of the utility's conservation efforts, which also include rebates on home insulation and energy-efficient windows. 02/03 The Wenatchee World
- 8. Efficiency Program Focuses on Buildings** - State and local officials expect word next month on a proposal to greatly expand the retrofitting of buildings in an effort to save energy and create jobs. The proposal seeks \$65 million from the federal stimulus package to develop new financing models for a major expansion of energy efficiency efforts in Milwaukee, Madison and Racine, WI. 02/02 Milwaukee Journal Sentinel

9. **Xcel Energy Clients Can Buy \$1 Energy-Saving Bulbs** - Xcel Energy's Minnesota electric customers can now buy energy-efficient compact fluorescent light bulbs for as little as \$1 per bulb. The special prices are available at many stores, but quantities are limited. The low price is available only while supplies last. Participating stores include Ace Hardware, Byerly's, Costco Wholesale, Cub Foods, Eastside Food Coop, The Home Depot, Lund's, Mississippi Markets, Rainbow Foods, Sam's Club, Target, Walmart and Wedge Community Coop stores. 02/03 AP

10. **Pacific Gas and Electric Company Issues Energy Efficient Rebates for Business, 2010 thru 2012** - For more information on Pacific Gas and Electric Company's (PG&E) rebates and incentives for business: www.pge.com/businessrebates to access the latest rebate information, catalogs, and guidance for your next energy efficiency upgrade. Apply for your rebate online through eRebates at www.pge.com/mybusiness/erebates In addition to rebates, you can find a wide range of tools and resources at www.pge.com/mybusiness/energysavingsrebates PG&E's Automated Benchmarking Service at www.pge.com/benchmarking Learn more about these programs, tools and offers at www.pge.com/mybusiness or contact the Business Customer Service Center at 1-800-468-4743. Find local vendors who participate in PG&E's Energy Efficiency Rebate programs at www.pge.com/tradeprodirectory For the PG&E Lighting Rebate Catalog: http://www.pge.com/includes/docs/pdfs/mybusiness/energysavingsrebates/incentivesbyindustry/lighting_catalog_final.pdf

11. **Governor Schwarzenegger Announces First-in-the-Nation Statewide Green Building Standards Code** - Continuing California's efforts to fight climate change and protect the environment, Gov. Arnold Schwarzenegger recently announced the California Building Standards Commission (BSC) unanimously adopted the first-in-the-nation mandatory Green Building Standards Code (CALGREEN) requiring all new buildings in the state to be more energy efficient and environmentally responsible. Taking effect Jan. 1, 2011, these comprehensive regulations will achieve major reductions in greenhouse gas emissions, energy consumption, and water use to create a greener California. Many of the mandatory provisions in the code are already part of the statewide building code, making verification of CALGREEN an easy transition for local building inspectors. <http://ecmweb.com/ezone/statewide-green-building-standards-code-20100127/>

SPECIAL FEATURE... NEW US DOE EFFICIENCY STANDARDS FOR LAMPS

THE NEW STANDARDS FOR BOTH GENERAL SERVICE FLUORESCENT LAMPS AND INCANDESCENT REFLECTOR LAMPS BECOME EFFECTIVE FOR LAMPS MANUFACTURED OR IMPORTED ON OR AFTER JULY 14, 2012. LAMPS ALREADY IN THE DISTRIBUTION CHAIN ON THAT DATE MAY LEGALLY BE SOLD.

THE NEW STANDARDS FOR GENERAL SERVICE FLUORESCENT LAMPS ARE:

LAMP TYPE	CORRELATED COLOR TEMPERATURE	ENERGY CONSERVATION STANDARD LM/W
4-FOOT (T8-T12) MEDIUM BI-PIN ≥25W	≤ 4,500K	89
	> 4,500K AND ≤ 7,000K	88
2-FOOT (T8-T12) U-SHAPED ≥25W	≤ 4,500K	84
	> 4,500K AND ≤ 7,000K	81
8-FOOT (T8-T12) SLIMLINE ≥52W	≤ 4,500K	97
	> 4,500K AND ≤ 7,000K	93
8-FOOT (T8-T12) HIGH OUTPUT	≤ 4,500K	92
	> 4,500K AND ≤ 7,000K	88
4-FOOT (T5) MINIATURE BI-PIN STANDARD OUTPUT ≥26W	≤ 4,500K	86
	> 4,500K AND ≤ 7,000K	81
4-FOOT (T5) MINIATURE BI-PIN HIGH OUTPUT ≥49W	≤ 4,500K	76
	> 4,500K AND ≤ 7,000K	72

IMPACT FOR LAMPS (ALL COLOR TEMPERATURES)

- T12 4-FT. & 2-FT U-LAMPS WITH MEDIUM BI-PIN BASES
 - MAJORITY OF F40 AND F34T12 LAMPS AND ALL FB40 AND FB34T12 U-LAMPS FAIL.
 - 4-FT. REQUIRES 3560 LUMENS @ 40W AND 3030 LUMENS @ 34W TO PASS @ 89 LPW.
 - 2-FT. U-LAMPS REQUIRE 3360 @ 40W AND 2856 @ 34W TO PASS @ 84 LPW.
 - CWX/DX/DSGN50/C50 COLORS ARE EXEMPT DUE TO CRI.
- T12 8-FT. SLIMLINE WITH SINGLE PIN BASES
 - ALL 75W F96T12 LAMPS FAIL.
 - ALL 60W F96T12/ES FAIL EXCEPT FOR THE 800/SPX SERIES & SOME 700/SP LONG LIFE SERIES.
 - CWX/DX/DSGN50/C50 COLORS ARE EXEMPT DUE TO CRI.
- T12 8-FT. 800MA HO WITH RDC BASES
 - ALL 110W F96T12 HO LAMPS FAIL. REQUIRE ENHANCED COATINGS WITH 10,120 LUMENS TO PASS.
 - ALL 95W F96T12/ES/HO FAIL EXCEPT FOR ENHANCED 800 SERIES. REQUIRE 8740 LUMENS TO PASS.
 - CWX/DX/DSGN50/C50 COLORS ARE EXEMPT DUE TO CRI.
 - CW/COLD TEMP. & D/ COLD TEMP. ARE EXEMPT.
- T8 4-FT. & 2-FT. U-LAMPS WITH MEDIUM BI-PIN BASES
 - ALL 4-FT. T8 BASIC 700/SP SERIES LAMPS @ 2800 LUMENS FAIL. REQUIRE 2850 LUMENS TO PASS.
 - ALL OTHER 4-FT. PASS.
 - ALL 2-FT. 800/SPX SERIES U-LAMPS PASS. SOME 700/SP SERIES PASS.
- T8 8-FT. SLIMLINE WITH SINGLE PIN BASES
 - ALL PASS EXCEPT SOME 700/SP SERIES. REQUIRE 5723 LUMENS @ 59W TO PASS.
- T8 8-FT. HO WITH RDC BASES
 - ALL PASS EXCEPT SOME 700/SP SERIES. REQUIRE 7912 LUMENS @ 86W TO PASS.
- T5 4-FT WITH MINIATURE BI-PIN BASES - ALL PASS.

THE NEW STANDARDS FOR INCANDESCENT REFLECTOR LAMPS (IRL) ARE:

LAMP WATTAGE	LAMP TYPE	DIAMETER	VOLTAGE	MINIMUM LPW; EXPRESSED HERE AS A RANGE FOR 40W - 205W AS LPW IS DERIVED FROM A FORMULA BASED ON LAMP WATTS
40W-205W	STANDARD SPECTRUM	> 2.5 INCHES (PAR30, PAR38, BR30 & ER30, BR40 & ER40)	≥ 125 (130V) < 125 (120V)	6.8 X LAMP WATTS 18.4 TO 31.9 LPW 5.9 X LAMP WATTS 16.0 TO 27.6 LPW
		≤ 2.5 INCHES (R20 & PAR20)	≥ 125 (130V) < 125 (120V)	5.7 X LAMP WATTS 15.4 TO 26.7 LPW 5.0 X LAMP WATTS 13.5 TO 23.4 LPW
40W-205W	MODIFIED SPECTRUM	STANDARDS ARE APPROXIMATELY 17% LESS STRINGENT THAN FOR STANDARD SPECTRUM LAMPS		

EXEMPTIONS TO IRL STANDARDS:

- LAMPS THAT ARE 50W OR LESS: ER30, BR30, BR40, AND ER40
- LAMPS THAT ARE 65W EXACTLY: BR30, BR40, AND ER40
- LAMPS THAT ARE 45W OR LESS: R20

IMPACT

ONLY A FEW OF TODAY'S HALOGEN REFLECTOR LAMPS, E.G. PAR20, PAR30 AND PAR38, CAN MEET THE STANDARDS IN THE FINAL RULE.

IN ORDER TO MEET THE NEW STANDARDS, REFLECTOR LAMPS WILL NEED TO USE NEW TECHNOLOGIES SUCH AS ADVANCED INFRARED (IR) COATINGS AND OPTIMIZED REFLECTOR COATINGS. IR COATINGS REDIRECT WASTED HEAT ENERGY EMITTED BY THE LAMP FILAMENT BACK TO THE FILAMENT, INCREASING THE TEMPERATURE OF THE FILAMENT, AND THUS ENABLING IT TO PRODUCE MORE LIGHT WITHOUT INCREASING WATTAGE. OPTIMIZED REFLECTOR COATINGS WILL MORE EFFICIENTLY DIRECT LIGHT PRODUCED BY THE LAMP OUT OF THE LAMP AND INTO THE SPACE BEING ILLUMINATED.

THE FEW EXISTING LAMPS THAT MEET THE NEW STANDARDS ARE MORE EXPENSIVE THAN THE STANDARD HALOGEN LAMPS ON THE MARKET TODAY. WHILE THE INITIAL COST OF THE NEW HIGHER EFFICIENCY REFLECTOR LAMPS WILL BE HIGHER, THE CONSUMER SHOULD SEE A PAYBACK THROUGH REDUCED ELECTRICAL BILLS DEPENDING ON THE AMOUNT OF TIME THE LAMPS ARE "ON".

BY DAIN M. HANSEN*, NEMA GOVERNMENT RELATIONS

* INVITED EXPERT AUTHOR. THE IMPACT ON CURRENT LAMP TYPES INCORPORATED IN THIS ARTICLE IS CONSENSUS INFORMATION PROVIDED BY THE NEMA LAMP SECTION WHICH REPRESENTS MOST MANUFACTURERS OF THE SUBJECT LAMPS. THE IESNA LEGISLATIVE AND REGULATORY INFORMATION COMMITTEE HAS REVIEWED AND APPROVED THIS ARTICLE.