

NATIONAL ENERGY ISSUES TO WATCH:

1. Lamp Changes Over the Next Four Years -

Incandescent A-Line Regulations

100W	➔	72W	1/1/2012
75W	➔	53W	1/1/2013
60W	➔	43W	1/1/2014
40W	➔	29W	1/1/2014



2. **Commercial Construction Remains on the Decline** - Despite reports from the 12 Federal Reserve districts indicating that economic conditions are improving modestly since the last report more than a month ago, market conditions for commercial real estate and construction were reported to have weakened in virtually all districts, with rising vacancy rates and downward pressure on rents. According to the AIA semi-annual Consensus Construction Forecast, nonresidential construction spending is expected to decrease by 13.4% percent in 2010. 12/11 EC&M

3. **Energy Star Program Turns 10** - Started in 1999, there are now 8,400 Energy Star commercial buildings in the U.S. that have met the programs energy efficiency standards for retail stores, hotels, schools and supermarkets. Energy Star buildings are required to perform better than 75% of similar building nationwide to qualify, verified by an engineer. Energy Star buildings use 35% less energy, emit 35% less carbon dioxide than average buildings and in office buildings, cost \$0.50 less per square foot to operate than average buildings. 12/10 USA Today

4. **Updated ENERGY STAR Advanced Lighting Package Literature Available** - Updated copies of the ENERGY STAR Advanced Lighting Package brochure for consumers and builders and the Advanced Lighting Package Energy Savings Charts are now available. ENERGY STAR partners and other stakeholders can request copies of the materials through www.energystar.gov/publications

5. **The Impact of LEED® Certification** - Based on a recent report prepared by Booz Allen Hamilton for the U.S. Green Building Council (USGBC), the rate at which U.S. buildings are gaining LEED certification has taken off. Some of the key findings clearly illustrates that Green Building will continue to grow rapidly over the next few years, and perhaps beyond 2013:

- In the nine-year period from 2000 to 2008, green construction generated \$173 billion dollars in GDP and supported over 2.4 million jobs that in turn provided \$123 billion dollars in labor earnings.
- Over the five -year period, 2009 to 2013, this study forecasts that green construction will generate an additional \$554 billion dollars in GDP and will support over 7.9 million jobs that in turn will provide \$396 million dollars in labor earnings. <http://www.tedgreenroom.com>

6. **NEMA and AIA Call on Congress to Extend Commercial Building Tax Deduction** - NEMA and the AIA have called on Congress to support enlarging the Energy Efficient Commercial Building Tax Deduction from \$1.80 per square foot to \$3 per square foot in order to help stimulate immediate job creation. A letter to Congressional members was co-signed by more than 50 organizations in the construction and environmental arenas. A copy of the letter is available: <http://www.efficientbuildings.org>

7. **Exxon Move Signals Future of Energy** - There are some elements of the energy debate that one can count on. The first is that the role of oil and coal will change in the coming years. The role of alternative fuels will be limited for the foreseeable future. The use of wind and solar and geothermal and all the rest will barely add up to 5% of the country's energy needs in the next ten years – even under the most optimistic assessment. That leaves only one fuel as the real future of energy – both for power production and for transportation - and that fuel is natural gas. Exxon has now acquired one of the largest natural gas producers in the world in an all stock deal that cost \$31 billion. XTO will now become a company that is devoted to finding natural gas deposits in dense rock formations all over the world. The US was once an importer of gas and now sits on some of the world's largest reserves. The use of gas as a power plant fuel will expand, that is certain. It will also be employed more and more for its traditional uses; but the real future will lie in transportation. The Exxon involvement hastens that day as they have the incentive to go along with their distribution system. Much attention has been focused on the electrics but the real advances may come from the natural gas powered car and truck.

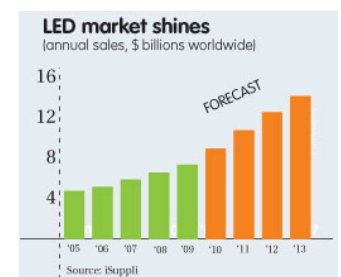
<http://www.strategic-briefs.com/BIB/ARMCCurrent.pdf>

8. **Federal Dollars Fuel Local Efficiency: Cities Ready to Lead** - In a new report released 12/23, ACEEE presented profiles of over 40 municipal energy efficiency programs as a guide for cities and counties preparing to implement federally-funded energy efficiency and conservation plans. ACEEE's new report, Energy Efficiency Program Options for Local Governments under the American Recovery and Reinvestment Act of 2009 examines a number of innovative energy efficiency programs implemented by American towns and cities prior to the passage of ARRA. The Energy Efficiency and Conservation Block Grant (EECBG) program will dispense more than 3 billion dollars to cities and states, creating jobs while improving U.S. energy efficiency through a variety of initiatives, including building retrofits, incentives, and audit programs. The full report is available for free download at aceee.org/pubs/e09x.htm

9. **Funding for Home Upgrades Urged in New Stimulus Bill** - Efficiency backers hope to persuade Congress to include a \$9 billion home-retrofit program in a jobs bill that lawmakers will consider this month. The Alliance to Save Energy is floating the initiative alongside workers' unions and several companies already doing home retrofits. They hope to finalize the details of the program -- including the exact size of the rebates -- by the time Congress considers new stimulus legislation. The program, known as "Home Star," would cut rebate checks to homeowners who purchase approved upgrades. It would offer larger rebates for homes that shrink their energy appetites by 20 percent or more. 01/04 E&E

10. **Energy-Efficient Traffic Lights Can't Melt Snow** - Cities around the country that have installed energy-efficient LED traffic lights are discovering a hazardous downside: The bulbs don't burn hot enough to melt snow and can become crusted over in a storm - a problem blamed for dozens of accidents and at least one death. Authorities in several states are testing possible solutions, including installing weather shields, adding heating elements like those used in airport runway lights, or coating the lights with water-repellent substances. Exactly how much a technological fix will cost is unclear, but it will surely cut into the savings and the energy efficiency many cities are enjoying. 12/15 AP

11. **LED Market Lights Up by Jim Carbone** - The LED market is taking off as the industry will post double-digit growth over the next several years, according to a new report by researcher iSuppli. Growth will be driven by the increased adoption of high brightness (HB) and high flux (sometimes called high power or ultra high brightness) LEDs into lighting applications. Global LED revenue will expand by 10.9% in 2009 to reach \$7.4 billion, up from \$6.7 billion in 2008. By 2013, the global LED market will reach \$14.3 billion, nearly double from 2009. Growth is being driven by the rising penetration of LEDs in existing lighting applications such as vehicles, traffic and street lighting, the backlighting of small liquid crystal displays and keypads in mobile handsets, personal navigation devices, digital picture frames and cameras. The market also is being aided by the emergence of new applications, such as backlighting of large LCDs in televisions, notebooks and computer monitors and personal illumination. 12/16 Purchasing http://www.purchasing.com/article/440688-LED_market_lights_up.php



12. U.S. Photovoltaic Market Driven by Falling Prices, Stimulus Funding, and Incentives - Demand for photovoltaic (PV) projects in the United States is rapidly expanding as a result of falling system prices, stimulus funding and new regulatory incentives, according to a new report from Greentech Media (GTM) Research, Cambridge, Mass. As the recession retreats, the United States is poised to become the largest global demand center for PV, says the report "The United States PV Market: Project Economics, Policy, Demand, and Strategy Through 2013." 12/11 EC&M <http://www.gtmresearch.com/report/the-united-states-pv-market-project-economics-policy-demand-and-strategy>

13. For Replacement Lamps, LEDs are Different by Vrinda Bhandarkar - Many energy efficiency programs have been promoting CFLs to reduce energy use. Rebates and discounts by major retail outlets have dramatically increased shipments of CFLs in the US — from 5% of the total lamps bought in 2004 to 23% in 2007. The US EPA estimates that Energy Star CFL sales for 2007 were nearly double those in 2006. However, gains in efficient lighting have been fragile in the US. Sales of CFLs have dropped in the current recession to 21% of total US consumer light-bulb sales in 2008 from 23% in 2007, according to the US DOE chart. There are many possible reasons for this decline in the market share of CFLs. New users have not been added to the market as disposable incomes have declined and customers are sensitive to higher prices. Early adopters bought the long-lasting CFLs and the rest of the market has not followed suit. Color quality issues of CFL persist and cannot be overcome with incentives. Fear of mercury in CFLs has not been adequately addressed. In spite of heavy investment in promoting CFLs, incandescent technology has proved difficult to unseat, especially in the residential segment. The LED lighting industry has continued to grow in spite of the economic downturn. <http://www.ledsmagazine.com/features/6/12/3>

14. 32 Industrial Companies Pledge 25% Energy Reduction - In conjunction with the DOE's launch of its Save Energy Now Leader program, which is designed to provide technical assistance and resources to companies that pledge significant improvements in industrial energy efficiency.

The companies signing the pledge include: <http://www.energy.gov/news2009/8328.htm>

- 3M (St. Paul, MN)
- AT&T (Dallas, TX)
- BPM Inc. (Peshtigo, WI)
- Bridgestone (McMinnville, TN)
- Briggs and Stratton (Wauwatosa, WI)
- Cummins Inc. (Columbus, IN)
- Danfoss (Baltimore, MD)
- Didion Milling (Johnson Creek, WI)
- The Dow Chemical Company (Midland, MI)
- Flambeau River Papers (Park Falls, WI)
- Honeywell (Morristown, NJ)
- Ingersoll Rand/Trane (Piscataway, NJ)
- Intel (Santa Clara, CA)
- JR Simplot (Boise, ID)
- Manitowoc Grey Iron Foundry (Manitowoc, WI)
- Mohawk Industries (Dalton, GA)
- Neenah Foundry (Neenah, WI)
- Nissan North America (Smyrna, TN)
- Osram Sylvania (Danvers, MA)
- Owens Corning (Toledo, OH)
- PPG Industries (Pittsburgh, PA)
- Quad/Graphics Inc. (Sussex, WI)
- Schneider Electric (Palatine, IL)
- Serious Materials (Sunnyvale, CA)
- Shaw Industries (Dalton, GA)
- Sherwin-Williams, Richmond (Richmond, KY)
- Spirax Sarco Inc. (Blythewood, SC)
- Thilmany Papers (Kaukauna, WI)
- ThyssenKrupp Waupaca (Waupaca, WI)
- United Technologies Corp. (Hartford, CT)
- Verso Paper (Memphis, TN)
- Volvo Trucks Inc. (Dublin, VA)

15. **Energizing Utilities for the Economic Stimulus Plan by Maureen Coveney** - With the passage of the ARRA, more than \$11 billion is allocated to create a bigger, better, smarter electric grid. The investment will allow for the use of more renewable energy, increased use of efficiency technologies and a reduction in electric congestion. As a result, each U.S. utility has an opportunity to leverage public funds. While executives sort out ARRA implications, they tackle industry issues and economic volatility: energy inefficiencies and costs, regulatory requirements and aging infrastructures. Because technology is seen as a critical enabler for implementing the economic stimulus plan, with some \$100 billion in funding to be spent incrementally during the next five years, it can help utilities see, think and act more clearly to develop and execute the necessary strategies.
<http://www.elp.com>

16. **Cashing in on the ARRA by Jim Lucy** - Electrical Distributors that focus on government contracts do so very quietly because they don't want to attract more competition to what's a niche market once you've got the hang of it. This Electrical Wholesaling's article in the December issue offers a crash course on joining the fun — and profits — the ARRA is creating.

- www.recovery.gov is the main gateway to ARRA funds. While it doesn't offer much as far as specific opportunities to sell electrical products, it's a good first stop because it introduces you to ARRA funding from 35,000 feet and then provides various paths to drill down into your areas of interest.
- www.fbo.gov is a database of all federal government contracts in excess of \$25,000 being funded by ARRA. First find your way to the web site's "Advanced Search" function. For starters, plug in "423610" into the "Keyword" field. This is the NAICS code for electrical distributors
- www.gsaadvantage.gov, which for the past 12 years has been a one-stop online resource for thousands of federal employees worldwide. It functions much like Amazon.com and is searchable by vendor, product, price and a host of other variables. According to its website, "GSA Advantage offers the most comprehensive selection of approved products and services from GSA contracts."
- www.dla.mil is the U.S Department of Defense's primary purchasing and distributing unit. It's truly massive, as it employs 25,000 civilian and military personnel, supplies the armed forces with anything from combat boots to jet engines, and in its 2008 fiscal year provided more than \$42 billion in goods and services to all military services worldwide.
- www.eere.energy.gov/recovery The Department of Energy (DOE) has \$36.7 billion in ARRA funds to spend and a huge percentage of that cash will be flowing right into projects of interest to the electrical market. The biggest recipient within the DOE is the Office of Energy Efficiency and Renewable Energy (EERE), which will receive \$16.8 billion — an almost 10-fold increase in its 2008 budget of \$1.8 billion.

17. **GE to Invest in Industrial Businesses** - Chief Executive Jeffrey Immelt said General Electric Co. will gain \$8 billion in cash by selling a majority stake in NBC Universal, which he plans to use largely to strengthen GE's industrial arm. Combined with the ongoing shrinking of GE's finance unit, the sale will refocus the conglomerate on its industrial roots. Mr. Immelt said he is most interested in expanding GE's businesses in aviation, health care, energy and oil... He also said GE is reconsidering a 2008 plan to sell its appliance and light bulb units. "Those businesses are executing very well...There is a quarter-by-quarter improvement in all those businesses." 12/04 WSJ

18. **GE Realigns Appliances, Lighting Unit** - General Electric Co. is realigning the industrial business formerly part of the division that makes appliances and light bulbs. The company confirmed Monday that its Consumer & Industrial division, based in Louisville, Ky., will lose authority over products such as electrical substations and circuit breakers, which will be placed under Atlanta-based GE Energy in a new division called Industrial Solutions. The division will be renamed GE Home & Business Solutions and will include alarms and advanced electronics along with home appliances and lighting. 01/05 WSJ

19. **New Lighting Product Standard Provides Clarity for Consumers** - Energizer announced Dec. 8 that the Flashlight Standards Committee has developed a set of flashlight features and benefits standards for consumers seeking information on such products. Until now, there has been no consistency in how flashlight features and benefits were presented; consumers might see a flashlight that claims light output of "3,000,000 candlepower" next to one that claims "40 lumens." The ANSI/NEMA FL1 - 2009 flashlight basic performance standard establishes consistent processes and definitions for reporting the following six areas of flashlight performance measurement, as well as simple icons to be printed clearly on packaging: 12/14 HCN

- Light Output - the light projected from a flashlight will be expressed in units of lumens
- Runtime - duration the light will operate continuously until projected light is dim
- Beam Distance - distance the light projects onto a surface
- Peak Beam Intensity - intensity of the projected light that does not vary with distance and expressed in units of candela
- Water Penetration Rating - clear definitions outlined about the difference between water-resistant, waterproof and submersible flashlights
- Impact Resistance - after six drop tests, it must maintain all previous established measures

20. **Top Ten News Stories of 2009 by Jim Lucy** - Electrical Wholesaling's picks for the most interesting news stories of 2009 in their December issue:

- 1) Concerns over the economy consume the electrical industry
- 2) Copper goes a different type of crazy in 2009
- 3) IMARK Group and Equity/EDN Marketing Group merge
- 4) In a light year for distributor merger and acquisition activity, strategic deals lead the way
- 5) The lighting market leads manufacturer M&As, but the biggest deal of the year is Hubbell's acquisition of Burndy
- 6) LEDs edge closer to the mainstream
- 7) Several electrical distributors and electrical manufacturers step up big-time in the wind market
- 8) Federal stimulus money starts dripping into the construction market
- 9) Rexel announces intentions to convert all branches to the Eclipse/Activant platform
- 10) Who's who at the zoo

STATE ENERGY ISSUES TO WATCH:

1. **Appliance Rebates Off to Slow Start** - Rebates to buy energy-efficient appliances, announced by the U.S. government in July, are so far available only in Delaware and won't be offered in many states until spring. The \$300 million "cash for appliances" program, funded by the federal economic stimulus, is being rolled out gradually, state by state. In contrast, the "cash for clunkers" car trade-in program was national, so all buyers became eligible the same day. For retailers, it's easier to market a national program than it is for one with rules that vary by state. The DOE has a website linking to each state's program: www.energysavers.gov 12/30 - USA TODAY

2. **ALA Urges States to Include Lighting in Appliance "Cash for Clunkers" Programs** - The ALA has written to the energy directors in all 50 states urging them to include lighting products in appliance rebate programs made possible by a \$300 million allocation of funds in the economic stimulus package. http://www.americanlightingassoc.com/members/files/11_09Lightrays.pdf

3. More States and Territories Approved to Receive Federal Money -

- DOE awarded the Western Governors' Association \$12 million to help 11 states plan for new electric transmission.
- Montana's share of the \$300 million national rebates on appliances program is \$928,000, which is enough for about 9,700 rebates.
- Tennessee will receive \$5.9 million for rebates on appliances
- Wisconsin was awarded \$5.4 million for rebates on appliances launched over the weekend
- Vermont's Energy Efficient Appliance Rebate Program will receive an additional \$536,400
- Ohio will use \$11 million federal stimulus money
- Missouri to distribute \$11 million in energy grants
- South Dakotans who replace old household appliances with more efficient models could get rebates of up to \$150 in a program that will begin March 1
- California's statewide "cash for appliances" program might get rolling around Easter time.
- Wisconsin has been allocated \$5.4 million for the State Energy Efficient Appliance Rebate Program starting Jan. 1, 2010
- Baltimore getting \$6.4M from DOE. City officials say through December, Baltimore has received about \$300 million of stimulus funds 12/22 AP
- Illinois received \$12.4 million and Iowa garnered \$2.8 million for "cash for appliances"
- Texas received \$23.3 million for rebates on appliances
- Utah's share will be \$2.6 million for the purchase of new energy efficient appliances

4. **Energy Costs for D.C. Commercial Buildings to Go Online** - Companies seeking to lease space in Washington's large commercial buildings will be able to compare the size of their future energy bills at various rental properties, thanks to a law passed in the District in 2008 that is beginning to take effect. The District's "Clean and Affordable Energy Act" aims to motivate property owners to adopt energy-efficient technologies by making their monthly power bills a matter of public record. To that end, beginning in 2010, property managers who oversee buildings with more than 200,000 square feet of office space are required by law to record energy and water usage rates on a Web site run by the EPA. The Institute for Market Transformation www.imt.org estimates that 260 buildings in the District will be required to record their energy data starting this year. In coming years, smaller commercial buildings will also be required to participate in the program. 01/01 Washington Post

5. **NYC Passes Energy-Efficiency Bills for Buildings** - Among the legislation passed Wednesday is a law that requires owners of buildings larger than 50,000 square feet to conduct energy audits once every 10 years and to make environmental "tune-ups" to operations and maintenance systems, like replacing weather stripping and insulating hot and cold steam pipes. The legislation initially required building owners to make more costly environmental improvements to their buildings, like major overhauls to heating and ventilation systems or replacing windows, but the Bloomberg administration dropped that because of opposition from building developers and real estate interests. Building owners said the plan was too expensive and would have saddled them with extra costs at the worst possible time. Some 22,000 buildings in the city would be covered by the plan. A third bill requires buildings larger than 50,000 square feet to upgrade their lighting systems to comply with the new energy code by 2025. 12/09 AP

6. **One Million PECO Discounted CFL Bulbs to be Sold** - Part of broader suite of programs to help customers save money and energy, discounted PECO CFL bulbs hit the shelves this October and are available at more than 700 local stores. The suite of energy saving programs is part of the company's support of Pennsylvania's energy efficiency and conservation plan requiring state electric utilities to reduce energy use by 1 percent by May 31, 2011 and 3 percent by May 31, 2013, and reduce energy demand during the 100 highest demand hours of the year by 4.5 percent by May 31, 2013. The programs will cost residential customers about \$1.50 additional on their monthly energy bills. To learn more or locate a store carrying PECO discounted CFL bulbs visit www.peco.com/SAVE

7. **Knoxville, TN Votes for \$19M Energy Efficiency Project** - The Knoxville News Sentinel reports the energy conservation project costs more than \$19 million, but the city will pay nothing up front because the work will be paid for over 13 years by the annual savings guaranteed by the contractor Ameresco based in Massachusetts. The work is expected to last up to two years and will involve 99 city-owned buildings, 37 athletic fields, and three golf courses. The project is expected to reduce the city's energy use by 15 to 25 percent. 12/30 AP

8. **Iowa Non-Regulated Utilities to Boost Energy Efficiency** - Electric cooperatives and municipal utilities in Iowa plan to ramp up energy efficiency programs in the next few years. Iowa's electric cooperatives plan to collectively spend an average of \$14 million annually between 2010 and 2014, or more than \$71 million over five years, to encourage energy efficiency by customers. The utilities will employ strategies such as rebates on Energy Star appliances and on more efficient residential and commercial lighting. The full reports of the groups are available online at the Iowa Utilities Board's electronic document search site: <https://efs.iowa.gov/efs/ShowSummaryOrdersFilingsSearch.do> 01/06 The Gazette

9. **Ameren Increases High-Efficiency Fluorescent Bulbs Switch Incentive** - High-efficiency fluorescent bulbs makes companies eligible for an additional 10 percent incentive payment against the cost. The money will be paid out by the IL utilities -- AmerenIP, AmerenCIPS and AmerenCILCO -- for qualifying projects submitted before a Jan. 31 deadline. The new incentive money is in addition to other incentives already available to install more efficient lighting under the utilities' \$7 million Act On Energy program targeted at businesses. This offers payments of up to \$100,000 per qualifying project to encourage businesses to upgrade their lighting. "After 2011, T12s will no longer be manufactured," said Ameren utilities spokesman Leigh Morris. "So the bottom line is at some point you are going to have to do this, and now you can do it and we're going to give you an extra 10 percent on top of our other incentives." To apply go to www.ActOnEnergy.com

10. **Door Manufacturer Gets \$1.3 Million Energy Grant** - CMI, the Chicago-based door and millwork manufacturer, has been awarded more than \$1.3 million through the ARRA Act of 2009 to install a back-pressure steam turbine at its door, trim and panel manufacturing facility in Towanda, Pa. The new system will use existing excess steam to generate up to 1,000 kilowatts of electricity per day. 12/23 HCN

11. **Program to Help Minnesota Businesses Save Energy Continues** - The program, Energy Smart, is run through the Minnesota Chamber of Commerce's Waste Wise program. It started as a pilot in 2008. Officials say the continued funding allows Energy Smart to help more businesses find incentives to be energy efficient. The program has already contacted over 5,000 businesses - and most were unaware of opportunities available. 01/06 AP Energy Smart also recently launched a blog: <http://www.mnenergysmart.com/blog>

12. **APS Plan Expands Energy-Efficiency Programs** - Arizona Public Service submitted a plan to the Arizona Corporation Commission that would increase the utility's energy-efficiency efforts by about 40 percent next year. The plan would expand existing programs such as subsidizing energy-saving compact fluorescent lights and providing rebates to homeowners who buy high-efficiency air conditioners. Also it would add new programs including recycling old, inefficient refrigerators and other appliances that homeowners are willing to remove from service. 12/06 The Tribune

13. **New California Law Requiring CFL Recycling** - The California Lighting Efficiency and Toxics Reduction Act, which seeks to motivate manufacturers to reduce mercury in CFLs while helping to establish a free and convenient program for consumers to properly dispose of fluorescent lighting, goes into effect Jan. 1, 2010. According to the new law, manufacturers are not allowed to use funds generated from energy distribution charges for the purchase and distribution of CFLs unless the CFLs meet specified standards, including low levels of mercury, and the manufacturer has implemented a fluorescent lamp recycling program. Manufacturers that receive the rebate funds must submit an annual lamp recycling activity report and pay an administrative fee not to exceed \$5,000 per manufacturer. Retailers who wish to participate in any state-sponsored lighting energy rebate program must provide in-store collection opportunities for recycling fluorescent lamps. http://www.americanlightingassoc.com/members/files/11_09Lightrays.pdf

14. **Lowe's Launches Energy Centers** - Mooresville, N.C.-based Lowe's has announced the launch of Energy Centers in 21 of its California stores. The Energy Centers are designed to be one-stop destinations to help customers create an energy plan that fits their budgets. The center includes a touch-screen kiosk to help customers evaluate energy needs, while the center itself features products to meet those needs based on three criteria: Measure, reduce and generate -- measure their energy use and loss, reduce energy consumption and generate their own energy, if possible. 12/11 HCN

15. **Puget Sound Energy Adds Seven New Residential Energy Efficiency Rebates for 2010** - Western Washington homeowners can now get new utility rebates on energy efficient water and space heating equipment and home improvements, increasing the number of ways residents can both save energy and money and benefit the environment. Puget Sound Energy will offer seven new rebates for both electric and natural gas customers who upgrade starting Jan. 1, 2010. PSE will continue to offer residential customers numerous other rebates on energy-efficient appliances, equipment and upgrades, including discounts on compact fluorescent lighting. 01/06 BUSINESS WIRE

SPECIAL MONTHLY FEATURE

<http://ledcity.org>

STEPS TO BECOMING AN LED CITY®

1. Identify a pilot LED lighting installation. Potential applications include:
 - a. Parking-garage lighting
 - b. Parking-lot lighting
 - c. Pedestrian street or pathway lighting
 - d. Outdoor building-facade lighting
 - e. Interior and exterior recessed can lighting
2. Contact LED fixture manufacturers with solutions for the pilot application selected. The following link provides contact information for a number of LED fixture manufacturers. The manufacturers can provide application, product and pricing information as well as help you calculate potential energy and maintenance-cost savings. <http://www.ledcity.org/fixture-contacts.html>
3. Select, purchase and complete installation of LED lighting products for the initial pilot project.
4. Contact Deb Lovig, Cree LED Programs Manager, at deb_lovig@cree.com to discuss joining the LED City program.
5. Get agreement from the mayor's office to participate in the program, share results of the pilot, commit to evaluating LED lighting across your infrastructure and deploy LED lighting where it makes good business sense.
6. Confirm energy savings, energy-cost savings and maintenance-cost savings as compared to the traditional lighting solution. Compare initial purchase costs and overall lifetime savings to determine return on investment. This information will be valuable in helping all stakeholders decide where LED lighting makes good business sense.
7. Plan an announcement of your participation in the program. You may wish to conduct a survey or solicit input from citizens to assess how the new lights are being received. Signs can be posted to prompt email feedback on light quality and safety issues. You may also wish to take before-and-after photography (professional-quality) to help illustrate the dramatic difference in the new lighting.

