

Energy Efficiency News Alert

June 2011

Building owners see increasing benefits and pressure for implementing energy efficiency measures

What incentive do building owners have to improve energy efficiency when their tenants pay most or all of the energy bills? Building owners in the past have avoided spending money to improve energy efficiency because they received little or no credit for those projects through higher rents or building valuation. However, times are changing and building owners are now in fact receiving higher rents and building valuations for green buildings.

A study by the Institute of Business and Economic Research at the University of California at Berkeley ([Working Paper W08-001, August 2009](#)) found that buildings with an ENERGY STAR® or LEED rating “command rental rates that are roughly three percent higher per square foot than otherwise identical buildings” and that “premiums in effective rents are higher – above six percent.” The study also found that the sale prices of green buildings are “higher by about 16%.” The study found that “a one dollar saving in energy costs from increased thermal efficiency yields roughly 18 dollars in the increased valuation of an ENERGY STAR-certified building.”

Aside from these benefits, there is now a growing trend for government regulations that require building owners to disclose their building’s energy usage. This is good news for building owners that have implemented energy efficiency improvements and have obtained an ENERGY STAR label or other green certification, thus proving that their building deserves higher rents and a higher sales price.

In May 2011, Seattle became the latest city requiring commercial buildings to disclose their energy usage, thus joining other cities such as San Francisco, New York, and Washington DC. Requirements for commercial building

energy benchmarking are also emerging at the state level. California law (Assembly Bill 1103 – see www.ab1103.org), for example, requires owners of commercial buildings starting on January 1, 2012 to disclose their building’s energy benchmarking data using the EPA’s ENERGY STAR Portfolio Manager upon the sale or lease of the entire property or upon refinancing.

The U.S. federal government has taken a step further by requiring that any new leases entered into after December 2010 must be in ENERGY STAR labeled buildings. A building that has earned an ENERGY STAR label is a building that ranks in the top 25% of efficiency energy use among peer buildings. The federal government adopted this requirement in order to save money on its energy usage and also to promote a national policy of reducing unnecessary energy usage and greenhouse gas (GHG) emissions.

The trend toward tenants requiring buildings to have ENERGY STAR labels is likely to accelerate. Many companies are adopting policies of improving their sustainability by reducing energy usage. Leasing office or industrial space in an ENERGY STAR-labeled building is a way for a company to quickly reduce its energy footprint and its GHG emissions.

INDUSTRY FOCUS: HIGHER EDUCATION

University campuses are starting to use microgrids to obtain less expensive and more reliable power

University campuses are warming up to the idea of using microgrids as a way to reduce energy costs and at the same time improve the reliability of power to university buildings and laboratories. A microgrid is a semi-independent power zone that is connected to the utility grid but can be operated in either a grid-connected or island mode.

A microgrid is attractive because it allows a university to take control of its own power usage and generation and protect itself from grid blackouts and utility electricity price increases. Other entities that are developing microgrid projects include hospital campuses, data centers, military facilities, and communities that want more control over their power systems than the local grid and utility can provide.

The Illinois Institute of Technology in Chicago, for example, is in the midst of a 5-year program to build a microgrid system. IIT is building the system because, like many other universities and municipalities, IIT is outgrowing its electricity distribution system and needs a modernization program in any case. IIT says that it experiences three or more power outages each year, at a cost of up to \$500,000 annually in restoration expenses, lost productivity, and ruined experiments that often cannot be recovered.

The \$12 million IIT Perfect Power System is expected to pay for itself over the course of the 5-year phased program and thereafter produce \$1.3 million in annual savings. When the final phase is completed in 2013, IIT will have a power system that is highly efficient and controllable, that has a high degree of redundancy and reliability, and that has the ability to easily install additional self-generation facilities down the road as needed.

The University of California at San Diego (UCSD) is also in the process of building a microgrid system to reduce energy costs, improve reliability, and integrate solar and fuel cell generation facilities. A key feature of the UCSD system is a high-efficiency low-emission combined heat and power (CHP) plant that generates 85% of UCSD’s electricity needs. The university earned an ENERGY STAR® CHP Award for its CHP plant in 2010.

The UCSD campus is in the process of installing renewable energy generation capacity. The campus already has 1.2 megawatts of photovoltaic solar capacity and plans to expand that capacity to 2 megawatts in 2011. The campus plans to install a 2.8-megawatt fuel cell plant in 2011 that will be the largest on any college campus and will provide about 8% of UCSD’s electricity needs. Moreover, the fuel cell system will use waste methane gas from the Point Loma Wastewater Treatment Plant, thus preventing that methane from either being burned or escaping into the atmosphere.

UCSD is installing a microgrid master controller that will “function as a virtual power plant, scheduling energy self-generation, electricity imports and electric and thermal storage while factoring in the demand load and the variable price of electricity to buy or sell.” The cogeneration power plant saves the university \$670,000 per month in energy costs.

The UCSD campus is also conducting a \$73 million building retrofit project. The retrofit project will improve the energy efficiency of 25 of its older buildings and save a total of \$6 million in energy consumption per year.

There are a growing number of other colleges and universities that are focused on microgrid projects with the goal of reducing energy costs and improving reliability. An experienced energy management company such as Lime Energy can help universities to plan and implement these projects in a low-cost and time-efficient manner.

Previous Lime Articles for Higher Education

[Students increasingly find college sustainability to be an important factor in selecting which college to attend](#)

UPCOMING CONFERENCES

June		
7-8	Warwick, RI	2011 Northeast Energy Efficiency Summit
12-15	Colorado Springs	Edison Electric Institute (EEI) Annual Convention
15-17	Lake Geneva, WI	Illinois Banking Association convention
15-16	Long Beach CA	West Coast Energy Management Congress
27-29	Charlotte	Bank Facilities Forum
26-28	Wash DC	Building Owners & Managers Association (BOMA) convention
July		
26-29	Niagara Falls	ACEEE Summer Study on Energy Efficiency in Industry
31+	Chicago	Energy & Water 2011 - “Efficiency, Generation, Management and Climate Impacts

SELECTED ENERGY EFFICIENCY NEWS CLIPS

(click on headline to view full online story)

Unleashing Energy Retrofits

May 16 - NRDC Switchboard - By now it is becoming common knowledge that around 40% of energy is consumed by the built space in the United States. (In New York, the nation’s densest living space, the figure is 80%)...

Deloitte: Companies Seek Big Cuts in Energy Costs

May 23 - Environmental Leader - Companies are targeting, on average, a 25 percent reduction in their energy consumption or cost, according to a survey by Deloitte...

Could 2013 Be a Tipping Point for Sustainability Spending?

May 20 - Greenbiz.com - Corporate spending on sustainability could double in 2013 from current levels, sparking a massive market expansion as companies increasingly see the business value of investing in enterprise-wide programs...

How the Top Business Schools Perform on Sustainability

May 20 - Greenbiz.com - It’s a mark of progress that a series of business-school rankings as influential as that of Bloomberg BusinessWeek includes metrics on sustainability in its annual scores...

Navigating the New Global Energy Management Standard

May 12 - Greenbiz.com - The International Standards Organization publishes a new guideline this year, establishing a framework for energy management systems for buildings, industrial plants, commercial facilities and utilities. Though the new standard is voluntary, it could influence as much as 60 percent of the world’s energy use...

Real Estate Portfolio Managers Find Millions of Reasons to Go Green

May 5 - Greenbiz.com - Although large-scale real estate managers were relatively late to the green game, they’re still finding plenty of dividends...

Energy Benchmarking Picks Up Steam in the US

May 24 - Greentech Media - ...Seattle is just one of a handful of large U.S. cities and states to enact energy efficiency benchmarking legislation in large buildings, and many of the programs go into effect this year...

Energy Star shines a light on its ‘most efficient’ superstars

May 19 - Consumer Reports - There’s good and then, of course, there’s better and best. And a new Energy Star program tries to bring home that point, touting select Energy Star products as “Most Efficient.” Qualified products “must demonstrate efficiency performance that is truly exceptional, inspirational, or leading edge,”...

Green Campus: Teaching Energy Efficiency With Positive Peer Pressure, Classroom Curricula

May 26 - ASE - Each year thousands of freshmen head to college, many knowing little about energy conservation. That’s where the Alliance’s Green Campus Program steps in, teaching the new crop of students about...

EFFICIENT BUILDINGS

IEA: Building Energy Consumption Can be Cut 33%

May 18 - TheEnergyCollective.com - In its latest energy roadmap, the International Energy Agency (IEA) says dramatic energy savings could be achieved rapidly if policies which promote energy efficient heating and cooling technologies are adopted...

New Public/Private Partnership Aims to Build Energy Retrofit Industry

May 23 - NDRC Switchboard - ...a new program to promote energy efficiency in New York City buildings has launched. The program — the New York City Energy Efficiency Corporation (NYCEEC) — was designed by the city’s Office of Long Term Planning and Sustainability in collaboration with...

NRDC’s CMI and Greenprint Foundation Announce Collaboration on Working towards Energy Efficient Real Estate

May 2 - NDRC Switchboard - ... According to McKinsey & Company, cost-effective efficiency improvements, currently untapped, could save the building sector up to \$33 billion per year by 2030....

IEA extols the virtues of CHP in delivering renewables revolution

May 18 - Industrial Fuels & Power - The International Energy Agency (IEA) has said in its report “Co-generation and Renewables: solutions for a low-carbon energy future” that CHP is attractive to policymakers, private users and investors alike because it delivers a range of energy, environmental and economic benefits....

EFFICIENT LIGHTING

The Hidden Story in Solid State Lighting

May 13 - Greentech Media - LightFair International, the large lighting trade show, will take place next week, and the discussions there will likely center around LEDs. But don't be fooled into thinking that the market swirls around those small chips that emit light. The new kings of the industry are the light fixture makers....

Shoulda Gone to LIGHTFAIR This Year

May 19 - NDRC Switchboard - The world's largest lighting tradeshow, LIGHTFAIR International, is occurring this week in Philadelphia.... Without a doubt, the theme of the show is new energy efficient bulbs. The new technologies are coming from leading manufacturers of lighting products that are showcasing bulbs in every shape, brightness level and price point imaginable....

Have LEDs Finally Hit the Mainstream?

May 27 - Greenbiz - Writing in the Reader's Digest in 1963, a scientist named Nick Holonyak Jr... predicted that light-emitting diodes, better known as LEDs, would replace the incandescent light bulb of GE's founder, Thomas Edison....

COMPANIES & EFFICIENCY

Bank of America Aims for 15 Percent Cut in GHG Emissions

May 23 - Sustainable Life Media - Bank of America aims to cut its greenhouse gas emissions 15 percent below a 2010 baseline by 2015. The goal expands on a previous target for cutting U.S. emissions 18 percent between 2004 and 2009.... 90 percent of BOA's emissions come from energy consumption...

BofA launches \$55M energy program

May 25 - Bizjournals - Bank of America Corp. has launched a \$55 million program to encourage energy-efficiency improvements to older buildings. The program will provide low-cost loans and grants to Community Development Financial Institutions specializing in such retrofits....

Nike's Sustainability Report Takes Top Ceres-ACCA Award

May 11 - Greenbiz.com - ...These factors and others earned the company top honors today in the Ceres-ACCA (Association of Chartered Certified Accountants) North American Awards for Sustainability Reporting. Nike won for Best Sustainability Report, followed by first runner-up American Electric Power (AEP)....

Bloomberg Claims 200% ROI on Sustainability

May 6 - Environmental Leader - Every dollar that Bloomberg has spent on sustainability has saved two dollars in operating costs, according to the company's first public sustainability report. The ... company said that demand reduction and capital investment projects have led to over \$25 million in net savings since 2008

Top MBA Students Catalyze Energy Efficiency Investments in Corporate America

May 17 - Environmental Defense Fund - Environmental Defense Fund (EDF) kicks off another season of EDF Climate Corps, placing 57 specially-trained MBA students in 49 leading companies to develop practical, actionable energy efficiency plans that cut costs and greenhouse gas emissions....

NATIONAL ENERGY EFFICIENCY POLICY DEVELOPMENTS

Sens. Shaheen, Portman Introduce a National Energy Efficiency Strategy

May 17 - Alliance to Save Energy - At a Capitol Hill press conference on May 12, 2011, the Alliance’s honorary board chair Sen. Jeanne Shaheen (D-N.H.), and Sen. Rob Portman (R-Ohio) announced the introduction of a bill that would advance the use of energy efficiency to address the nation’s economic and energy challenges....

Energy Savings and Industrial Competitiveness Act of 2011

May 23 - Buildings - ASHRAE has worked with Senators Jeanne Shaheen (D-N.H.) and Rob Portman (R-Ohio) to develop the Energy Savings and Industrial Competitiveness Act of 2011. The legislation has been introduced in the U.S. Senate and is designed to reduce barriers that residential, commercial, and industrial sectors face when...

Comprehensive Federal Energy Legislation Looking Unlikely, But Opportunities for Individual Measures May Be on the Horizon

May 4 - ACEEE - ...The Senate Energy Committee reported out a bill with a variety of consensus equipment efficiency standards on a strong 18-4 bipartisan vote. The U.S. Chamber of Commerce recently endorsed this legislation....

Alliance Calls for Efficiency as a Key Component of Clean Energy Standard

Apr 29 - Alliance to Save Energy - In March, the Senate Energy and National Resources (ENR) Committee issued a white paper and request for comments on potential design elements of a national Clean Energy Standard (CES)....

U.S. Department of Energy Announces Five BetterBuildings Case Studies That Highlight Key Lessons to Improve Energy Efficiency Programs Nationwide

May 26 - EERE - The U.S. Department of Energy today announced the release of five case studies from a series spotlighting some of the most innovative projects funded under the Department’s BetterBuildings program.

How Cities, States and the Feds are Making Buildings Greener

May 19 - Greenbiz.com - At USGBC’s 9th annual Government Summit last week it was as clear to all in attendance that governments at every level are leading by example in building sustainability....

Addressing the Energy-Water Nexus: A Blueprint for Action and Policy Agenda

May 10 - ACEEE - ...Recognizing this need for collaborative actions, the American Council for an Energy-Efficient Economy (ACEEE) and the Alliance for Water Efficiency (AWE) secured a grant from the Turner Foundation to bring these two communities together to establish a blueprint for future joint efforts and to envision a policy agenda that could drive actions at the federal, state, local, and watershed levels....

REGIONAL ENERGY EFFICIENCY DEVELOPMENTS

Seattle Joins Commercial Benchmarking Movement

May 20 - Matter Network - On May 11, the city of Seattle launched a commercial benchmarking program for commercial buildings, joining Washington, D.C., New York City, San Francisco, Austin, and the states of California and Washington in requiring building owners to track and disclose their energy bills to prospective buyers and renters....

NY Expanded Energy Efficiency Programs Approved - 3 Utilities Win Notable Changes to Energy Efficiency Efforts

May 19 - NYSPSC - The New York State Public Service Commission (Commission) today approved a new targeted demand side management program for Consolidated Edison Company of New York, Inc. to provide financial incentives to install energy efficiency measures that defer or avoid transmission and distribution (T&D) capital expenditures....

Demand Resources and Energy Efficiency Continue to Grow in PJM’s RPM Auction

May 13 - PJM - Renewable resources, including demand response and energy efficiency, made up nearly 68 percent of the new capacity available and about 10 percent of the resources clearing PJM Interconnection’s recently completed capacity auction....

Opinion: Quitting RGGI wrong move for New Jersey

June 2 - NorthJersey.com - BY announcing New Jersey will be pulling out of the Regional Greenhouse Gas Initiative, Governor Christie risks destroying the first and most successful greenhouse gas reduction program in the country. The governor says the program is not effective, but statistics show otherwise, with New Jersey reducing greenhouse gas emissions to meet RGGI targets while funding clean energy programs.

New Hampshire Senate agrees to reform RGGI rather than repeal

May 11 - NH Union Leader - The Senate today voted to reform rather than repeal the Regional Greenhouse Gas Initiative on a 15-9 vote, but House Bill 519 still needs to be reviewed by the Senate Finance Committee before final approval.

New Hampshire Senate Votes to Amend Involvement in Carbon Market and Implement Energy Efficiency Fund and Rebates

May 11 - Bloomberg - ...Under the amended bill approved today by a vote of 16 to eight, the state’s would replace an emission reduction fund with an energy efficiency fund and would increase energy-efficiency rebates....

Madison looks to expand green initiatives with wide-ranging sustainability plan

May 10 - Wisconsin State Journal - In the past decade, the city of Madison has become greener, tapping solar and wind power, retrofitting buildings, buying hybrid buses and cutting pollution....

California: Aggressive efficiency and electrification needed to cut emissions

May 24 - Physorg.com - ...Scientists from Lawrence Berkeley National Laboratory who co-wrote a new report on California’s energy future are optimistic that the target can be achieved, though not without bold policy and behavioral changes as well as some scientific innovation....

Report Maps California’s Energy Future to 2050

May 2011 - California Council on Science & Technology - “California’s Energy Future - The View to 2050” looks a generation ahead at what’s required to reach that goal and answers the call of S-3-05, the executive order from 2005 to reduce the state’s emissions 80 percent below the 1990 level by 2050....

To Advance Efficiency, State Governments Go Local

May 12 - ACEEE - ...Recognizing that the economic and environmental benefits of energy-efficient buildings and transportation can help both states and localities attain broader policy goals, a growing number of states are collaborating and leveraging their unique resources to advance energy efficiency at the community level....

Maryland Department of Housing & Community Development Launches New Energy Efficiency Program

May 13 - DOE - U.S. Energy Secretary Chu applauded the launch of the Maryland Department of Housing & Community Development’s Be SMART (Save Money and Resources Today) program... which is helping to save energy, reduce energy bills, and increase the comfort, safety, and affordability of over 2,500 buildings in 15 communities...

INTERNATIONAL ENERGY EFFICIENCY DEVELOPMENTS

New IEA book addresses the role of electricity in meeting climate change goals

May 27 - IEA - ...A new book from the International Energy Agency (IEA) addresses some of the major policy and technology steps needed to achieve such “decarbonisation” of the electricity sector, and provides an authoritative resource on progress to date....

About Lime Energy

The Total Package

Lime Energy is a leading provider of energy efficiency and renewable services. Our integrated energy engineering, consulting and implementation solutions dramatically save energy at client facilities, reduce operations and maintenance costs and improve building infrastructure and value. We actively assist clients in managing their carbon footprint to limit the environmental impact of operations. Our projects include lighting upgrades, better controls, building envelope, water efficiency, on-site generation and renewable energy. We perform for the largest corporations, utilities, and government facilities; and also for small businesses from coast to coast. Our clients enjoy maximum benefit from the best combination of efficiency measures that meet their needs and energy goals.



Lime Energy Locations Nationwide

