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Welcome to EDA America



Welcome to the summer 2008 issue of the EDA America quarterly publication. As we prepare our regions for global competitiveness in the 21st century, one critical issue we must consider is the role

of environmental sustainability and its impact on economic development. The traditional view of environmental projects as anathema to economic development is undergoing a rapid and worldwide transformation. While environmental clean-up has been regarded historically as a cost to be borne before economic renewal can commence, concerns about climate change and dependence on fossil fuels have spurred an unprecedented number of initiatives across the Nation to diversify energy sources and increase energy efficiency.

Forward-thinking businesses, governments, universities and NGOs have come to view environmental considerations not as a hindrance to, but rather a source of, innovation that can enhance competitiveness. At the Economic Development

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U.S. Department of Commerce
Economic Development Administration

EDA America

Quarterly Insights and Best Practices in Economic Development

Summer 2008 Issue

Benefits of Going Green

By Jennifer Crawford, Research Associate, Davis Langdon and Peter Morris, Principal, Davis Langdon

“Going green” is all over the news these days. It has now become more than just a feel good slogan and increasingly is becoming a key factor as businesses continue to compete in a highly competitive global environment. Companies have now begun to build their business models for growing and retooling with a green component. This in turn raises the question as to whether this is a cost effective strategy. As companies work to answer this question, they are looking closely at the operations of their current physical plant and the impact of either building new, and/or retrofitting their facilities. More and more companies are learning how going green can be both environmentally and economically beneficial.

The information age has increased the focus on virtual business models and as a result the importance and impact of brick-and-mortar business facilities is often overlooked. One of the key contributors to global warming is greenhouse gas emissions. While the media focuses on the contribution of vehicle emissions to greenhouse gases, they actually account for a smaller per-

centage of total greenhouse gas emissions than buildings. In fact, a study by the Pew Center for Global Climate Change (Brown M., et al., “Solutions to a Climate-Friendly Built Environment,” June 2005) estimates that the built environment is responsible for up to 40 percent of greenhouse gas emissions in the U.S.

The primary source of building-related emissions comes from the emissions created by the production of energy that is consumed within these buildings. Buildings are significant consumers of energy for lighting, heating and cooling. In addition, the extraction, manufacture and transport of materials required to construct new buildings also plays a significant role in creating greenhouse gases as well as other impacts on the environment. The construction of a building can contribute as much as 10 to 15 times the carbon emitted by the annual operation of the same building. In addition, construction waste, the amount of paving, and associated loss of green spaces and natural habitat are also significant contributors to the

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Administration (EDA), this has translated into a greater level of support for economic development projects that address both regional competitiveness and environmental sustainability.

“Forward-thinking businesses, governments, universities and NGOs have come to view environmental considerations not as a hindrance to, but rather a source of, innovation that can enhance competitiveness.”

This issue of EDA America highlights successful examples of “green” economic development, examines the costs and benefits of green building and explores new opportunities for creating green jobs in new green industries. From housing to infrastructure to the creation of higher-skill, higher-wage jobs, green practices such as those featured in this issue will help not only the environment but also America’s competitive position in the 21st century worldwide economy.

I hope you will find these articles useful as you craft and implement environmental concerns into your economic development strategies. Together, we can positively impact the climate change goals we share while ensuring that our economy continues to prosper and grow.

Sincerely,



Sandy K. Baruah
Assistant Secretary of Commerce
for Economic Development

EDA America is a quarterly publication brought to you as a benefit of a partnership among the Economic Development Administration (EDA), the American Planning Association and DTI Associates. The partnership is designed to provide information about economic development practices and programs to economic development practitioners who serve distressed communities throughout the United States. It also provides telecasts and a monthly e-newsletter, EDA Update. For more information, visit the EDA Web site at www.eda.gov.

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negative impact buildings have on the environment. A collective look at all of these factors shows that the private sector is realizing that profitability can be obtained beyond normal business operations through energy conservation and increased efficiency.

Beyond the impact of a building or plant, and on a larger scale, transportation and urban infrastructure also contribute to environmental degradation. In addition to the emissions from vehicles, the land area devoted to roads and parking in the U.S. is substantial, leading to a loss of habitat, heat trapping and increased polluted urban runoff. Right sizing this infrastructure is often poorly understood or executed. For example, one study of an urban environment found three times as many parking spaces as cars. Poorly planned urban growth has led to increased storm water runoff and increased flooding, with often costly impacts to cities and regions. Increasingly, understanding and confronting these environmental concerns is becoming a paramount issue for communities as well as businesses when considering their economic development options. Businesses, cities

and regions are increasingly working together to identify and embrace sustainable practices in order to continue to remain competitive worldwide.

A number of green strategies have been developed to assist companies and municipalities in this effort to reduce greenhouse gas emissions associated with buildings, as well as reducing the impact of buildings on the overall environment. These include national systems such as LEED (Leadership in Energy and Environmental Design) and Green Globes. Green Globes, a ratings system and LEED, a certification process, both set standards in design criteria such as, achieving specified levels of water and energy efficiency or incorporating renewable or recycled materials.

Cost of Green

While the complexity of these green strategies can vary widely, even small changes in how buildings are constructed have been shown to have a noticeable effect. More building designers and owners are proving that implementing green strategies can be both cost and environmentally effective.

Many project teams are building green with little or no added cost and with budgets well within the cost range of non-green buildings with similar programs. Additionally, in many areas of the country, the contracting community has embraced sustainable design, and no longer sees sustainable design requirements as additional burdens to be priced in their bids.

In 2007, Davis Langdon published *The Cost of Green Revisited* which examined the cost impact of incorporating sustainable design into building projects using the U.S. Green Building Council's (USGBC) LEED rating system as the standard. The 2007 report was an extension of the 2004 study, *Costing Green: A Comprehensive Cost Database and Budgeting Methodology* (Matthiessen, L.F. and P. Morris). Both studies ultimately conclude that there is no statistically significant difference in the cost between buildings incorporating green features, and those that do not. It was also reported that many project teams have already built LEED-rated buildings within their existing budgets.

Impact to Businesses

The initial cost of a building is always important to any business wishing to expand their space. Green strategies can be incorporated into the building design, resulting in a cleaner, greener, healthier building at little or no initial cost. While it can be shown that the cost of creating the initial green structure is relatively neutral, these buildings also have many financial benefits that accrue over the life of the building, including reduced energy and operating costs, improved employee well-being, and reduced insurance costs. The long-term financial benefits combined with the low initial cost can make green buildings a significant contributor to a businesses' bottom line.

While direct costs for construction and operation of a building are a significant part of a companies' decision process, it is vital to also consider other, non-financial impacts that arise when considering sustainable design. As discussed earlier in this article, buildings use a significant amount of energy – energy that is often produced in ways that are harmful to the environment. In many of our important metro economic centers, and throughout the U.S., water resources are inefficiently used and are increasingly a scarce and high cost resource. Withdrawing water from the environment can negatively impact both surface and underground water sources, while inefficient planning for controlling stormwater runoff damages streams and rivers and leads to increased flooding in many areas.

Reducing the need for energy and water is one of the key components of most strategies for building a more sustainable building, and as energy costs continue to rise, implementing green strategies to reduce energy usage and to use water efficiently is good not only for the environment, but also for business.

Lighting, heating and cooling are the primary energy needs in a building, so many green strategies focus on ways to minimize the need for these functions. For example, buildings designed to take advantage of natural light through proper placement on the building site, a building's shape, and the number and size of windows are all factors which lead to less artificial lighting, and therefore ongoing energy costs are reduced.

As noted, there are a number of methods for reducing energy requirements and use in buildings, but there has been some speculation on whether or not buildings touted as energy efficient actually save as much energy as they claim. However, a recent study by the New Buildings



above: Cooper rendering 1 – this is a rendering of how the new Cooper Union school will look once it is complete; this is a school in New York that is highly focused on going green. Image courtesy of Peter Morris – Principal.

Institute (Turner C., M. Frankel, “Energy Performance of LEED for New Construction Buildings”, 2008) found that LEED rated buildings provide a 25 percent to 30 percent energy savings compared to their non-LEED counterparts. Furthermore, these savings increased as the LEED rating increased.

The results of this study demonstrate that sustainable design can deliver on its promises. This reduction in energy use results in financial savings, since a building that uses significantly less energy will also have a significantly lower energy bill. This not only benefits the building's owner, but also the building's tenants. While not all LEED-rated buildings will show the same level of reduction in energy use, the study underscores the importance of continual monitoring of building systems to ensure that systems continue to run as efficiently as possible.

Green buildings can improve the financial status of some businesses in other ways as well. A recent study by the CoStar Group (<http://www.costar.com/partners/costar-green-study.pdf>) found that LEED-rated buildings have a higher occupancy rate than non-LEED buildings, suggesting

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that more tenants prefer to rent space in green buildings than in non-green buildings. Interestingly, this study also reported that green buildings are able to garner higher rents than non-green buildings – an increase of more than \$11 per square foot – suggesting that more tenants are willing to pay a premium for a cleaner, healthier space. Other studies suggest additional benefits for businesses that employ green strategies, including improved employee happiness and well-being and less sick-time used.

Local and Regional Impacts

Implementing green strategies beyond an individual building can have a huge impact on the economic competitiveness of cities and regions. Non-building, green strategies, such as incorporating green spaces or improving or expanding public transit options can help reduce traffic in congested areas, as well as improve air quality when fewer cars are on the road. In fact, a study by Holtzclaw, et al., published in the 2002 vol. 1 issue of *Transportation Planning and Technology*, reported that as building density increases and access to public transit improves, the number of vehicles owned – and thus the environmental issues associated with vehicle ownership (traffic, congestion, and auto-related pollution) – decreases. In addition, there is growing evidence that increasing density reduces both the number and severity of automobile accidents.

As the realities of climate change have become more widely known and the impact of global warming on the health and well being of people has become more of a concern, cities and communities have

increasingly been looking toward green strategies to help minimize environmental impacts and improve the quality of life for their citizens. Just as more businesses are showing a preference for green offices, more people are showing a preference for living in cleaner, greener cities and communities. As the cost of fuel continues to rise, public desire for more efficient buildings, better public transportation options, and better protection of green spaces, water and other natural resources can be expected to also increase.

“More and more companies are learning how going green can be both environmentally and economically beneficial.”

There are a number of additional strategies that companies can employ to become greener. These include providing incentives or assistance to employees to carpool or use public transportation; allowing flexible schedules and/or telecommuting; instituting recycling programs within their facilities along with an associated focus on reducing waste; requiring the use of non-toxic cleaning supplies; and transitioning landscaping to more drought-tolerant, native species.

Building versus Upgrading

While more new buildings are being built to meet environmentally friendly standards, new buildings still account for only a fraction of the total volume of the built

environment within the U.S. Incorporating green strategies into existing building space is perhaps as, or even more important than constructing new buildings more efficiently.

The USGBC has addressed this with their LEED program directed toward projects that reuse existing buildings. As many businesses have come to recognize, building owners do not have to solely aspire to a LEED rating in order to be more environmentally friendly. Strategies to “green” existing building stock can be as simple as installing more efficient lights or instituting recycling programs and encouraging a reduction in waste as a company mandate or goal. They can also include more extensive strategies such as retrofitting for more efficient heating and cooling systems.

Conclusion

While cost is always a consideration, research and multiple studies show that businesses are increasingly building green, often at little or no additional financial cost. Businesses that go green are seeing increased savings in terms of utility costs. These findings indicate that many businesses are now building in ways that both reduce their impact on the natural environment while benefiting their bottom line. Communities are also helping their businesses go green by extending the green concept to robust improvements to infrastructure, which benefits not just businesses, but also workers and the community as a whole. Such innovative and forward-thinking strategies are key to keeping American corporations and communities competitive in the global marketplace.

EDA Reauthorization: Top 5 Reasons

Overview: The Economic Development Administration (EDA) Reauthorization Act of 2008 proposes to extend the authorization for appropriations under the Public Works and Economic Development Act through fiscal year 2013. Under current law, the authorization expires September 30, 2008.

How does EDA's 2008 reauthorization bill differ from its 2004 reauthorization? The content of this legislative proposal builds on the EDA Reauthorization Act of 2004 by proposing four technical changes, including two designed to enhance local control of EDA-assisted investments (outlined below).

How does the 2008 reauthorization bill's Revolving Loan Fund (RLF) provision affect RLFs? The Revolving Loan Fund (RLF) Program makes grants to state and local governments and nonprofit organizations to establish lending programs that make capital available in distressed regions at below-market rates or when funds are otherwise unavailable from private lenders. Currently, RLF operators may use the funds only for loans to small businesses. To better meet the needs of distressed communities, EDA proposes to give the RLF operators the flexibility to shift assets to additional uses by allowing the sale of assets and accumulation of capital in accordance with a strategic re-use plan. EDA will approve the conversion of RLF assets in this manner only if the recipient agrees to reinvest proceeds in projects that are consistent with EDA's statute.

How does the provision changing the federal interest for construction grants affect investment recipients? Currently, full payback of the federal interest (the percent of the project that EDA financed multiplied by the fair market value) is required if an EDA-financed building is sold prior to the expiration of the estimated useful life of

1. EDA helps create higher-skill, higher-wage jobs: Between EDA's 2004 reauthorization and the end of this year, the agency will have helped America's rural and urban communities create over 389,000 higher-skill, higher-wage jobs at an average cost of \$2,600 per job.

2. EDA helps American communities create linkages with the worldwide marketplace: No other U.S. Government agency has done more to help communities tap into the opportunities offered by expanding worldwide markets. In a recent national survey among city and state economic development officials, integrating rural and urban economies into the worldwide economy was identified as one of their most important issues.

3. EDA supports a critical nationwide network of Economic Development Districts (EDDs) and University Centers: EDA's network of 375 EDDs helps to guide the economic development planning process for

the infrastructure. Shortening the period of time subject to full repayment of the federal interest recognizes the changing needs of the grant recipient by allowing the sale or conversion of property to a more productive use with less financial encumbrance. EDA proposes an "amortized" schedule to value the federal interest based on the age of its investment starting after the project's tenth year.

What other provisions are included in the 2008 reauthorization bill?

Excellence in Economic Development Assistance Awards

The EDA bill provides an express statu-

America's economically distressed communities. EDA's network of University Centers assists in making the vast resources of universities available to economic development communities.

4. EDA spends taxpayer dollars wisely: EDA targets its investments to partner with the private sector to create higher-skill, higher-wage jobs. On average, every dollar in taxpayer money that EDA has invested since 2002 has attracted \$31 in private sector investment.

5. EDA focuses on results-based performance: EDA received the second highest performance rating by the Office of Management and Budget's (OMB) Program Assessment and Rating Tool (PART), and was inducted into the Balanced Scorecard Hall of Fame. The agency also meets or exceeds the targets for government performance and results as set by the Government Performance and Results Act (GPRA).

tory basis for the Excellence in Economic Development Assistance Awards program that recognizes eight categories of best practices in economic development.

RLF Administration

The 2008 bill also provides a dedicated source of funding for the administration of the RLF program for the first time. As the RLF program portfolio consists of 584 reporting units with assets valued at almost \$850 million, it is vital that EDA has funds to administer the RLF program.

Green-Collar Jobs in America's Cities

Kate Gordon, Program Director, Apollo Alliance

America's cities and metro regions are on the cusp of a clean energy revolution. We are standing at the edge of an enormous opportunity to reinvigorate our antiquated urban and energy infrastructures, and to move forward toward sustainability, efficiency and reduced greenhouse gas emissions. The opportunity to "green" our cities represents perhaps the greatest single engine for economic growth, innovation and job creation in many decades.

The greening of the American economy is already happening in many places around the country. The environmental sector is larger than the largest Fortune 500 company. As it grows, it will depend on countless new workers to retool our economy and rebuild the places we call home. Marrying the growing demand for environmental and energy policies to the concrete business development and job creation strategies that will anchor the green economy is the core economic develop-

ment challenge for our time. It will require policymakers from energy, economic and workforce development departments to break out of their silos and come together to collaborate on bold, creative solutions. These solutions must leverage the best of what cities and regions have to offer, including not only their existing labor markets and industrial strengths, but also their workforce training infrastructure, solar and wind and biomass resources and clean energy manufacturing potential.

Though there is no magic formula for building a strong local green economy, we recommend that policymakers work with communities and businesses to follow these steps:

1. Identify environmental and economic goals, and assess local and regional opportunities for achieving those goals;
2. Enact policies and programs to drive investment into targeted green economic

activity and generate demand for local green-collar workers;

“Marrying the growing demand for environmental and energy policies to the concrete business development and job creation strategies that will anchor the green economy is the core economic development challenge for our time.”

3. Prepare a local green-collar workforce by building green-collar job training partnerships to identify and meet workforce training needs, and by providing green pathways out of poverty that focus on recruitment, job readiness, job training and job placement for low-income residents; and
4. Leverage the program's success to build political support for new and bolder policies and initiatives.

A key to our recommendations is the importance of using green economic development to create green-collar jobs: high-quality, high-skill, career-track jobs that contribute significantly to enhancing or preserving environmental quality. These green-collar jobs, which are emerging mainly in construction, manufacturing, installation and operations/maintenance, are the backbone of the green economy. Like traditional blue-collar jobs, they range from low-skill, entry level positions



to high-skill, higher-paid jobs, and include opportunities for advancement in both skills and wages. Some are new occupations, such as wind turbine technicians and solar installers, while others are existing occupations that have the potential to capture new green markets. Whatever the industry, every green-collar job advances two simultaneous and complementary goals: improving the environment and strengthening the economy.

“Whatever the industry, every green-collar job advances two simultaneous and complementary goals: improving the environment and strengthening the economy.”

Cities across the country are already engaging in green economic development programs that prioritize green-collar jobs. In Los Angeles, the L.A. Apollo Alliance is working with economic and workforce development officials, industry and labor representatives, and community-based organizations to make sure there are opportunities for low-income residents to retrofit 100 of the city’s public buildings. In Newark, New Jersey, Apollo is working with the Mayor’s office, city agencies, private developers and a host of community members to link green-collar job training programs to city park programs, green



building policies and plans to upgrade the port. Additionally, New York, Washington D.C., Baltimore, Milwaukee and many other cities are moving ahead with innovative green economic development strategies of their own.

These are diverse cities with varied economies and environmental problems. Each is going about its green-collar jobs program in a different way. But these cities do have something in common: they are building a truly sustainable economy, where environmental goals go hand in hand with social and economic goals. They are embracing visionary policies, mobilizing all of the resources at their disposal to meet those goals, and explicitly working to expand the number of long-term, high-quality green-collar jobs for local residents. In so doing, they are moving toward local sustainability and also positioning their regions to be more competitive on the global scale.



top: California’s green-collar workers install solar technologies as part of Solar Richmond Initiative. Photo courtesy of Solar Richmond.

above: Sustainable South Bronx trainees install a green roof system. Photo courtesy of Sustainable South Bronx.

Check out EDA’s upcoming regional conference:

September 9-10, 2008, Denver, Colorado

EDA’s Denver and Seattle regional offices will host “Achieving Peak Performance”

For more information, visit: <http://www.eda.gov>

2008 EDA Excellence Award Winners Announced!

Assistant Secretary of Commerce for Economic Development Sandy K. Baruah recently announced the winners of the 2008 Economic Development Awards. Open to nonprofit organizations, local, state and regional government entities, universities and colleges, the winners were chosen by a distinguished panel of economic development experts.

Excellence in Rural Economic Development

Jackson County Development Council, Inc. Marianna, Florida
Specific program: Green Circle BioEnergy, Inc., (Project "PELLET")

Excellence in Urban or Suburban Economic Development

East Baltimore Development, Inc., Baltimore, Maryland

Excellence in Enhancing Regional Competitiveness

City of Lima, Ohio, Lima, Ohio

Excellence in Economic Adjustment Strategies

City of Duluth Economic Development Authority, Duluth, Minnesota
Specific Program: Creation of an aeronautical manufacturing cluster

Excellence in Technology-led Economic Development

Ben Franklin Technology Partners, Harrisburg, Pennsylvania

Excellence in Community and Faith-Based Social Entrepreneurship

Desert Alliance for Community Empowerment, Coachella, California

Excellence in Innovation in Economic Development

Bladen's Bloomin' Agri-Industrial, Inc., Elizabethtown, North Carolina

Excellence in Historic Preservation-led Strategies to Enhance Economic Development

Silver City MainStreet Project, Silver City, New Mexico

More information about the Excellence Award Winners will be available in a future issue of *EDA America*.

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