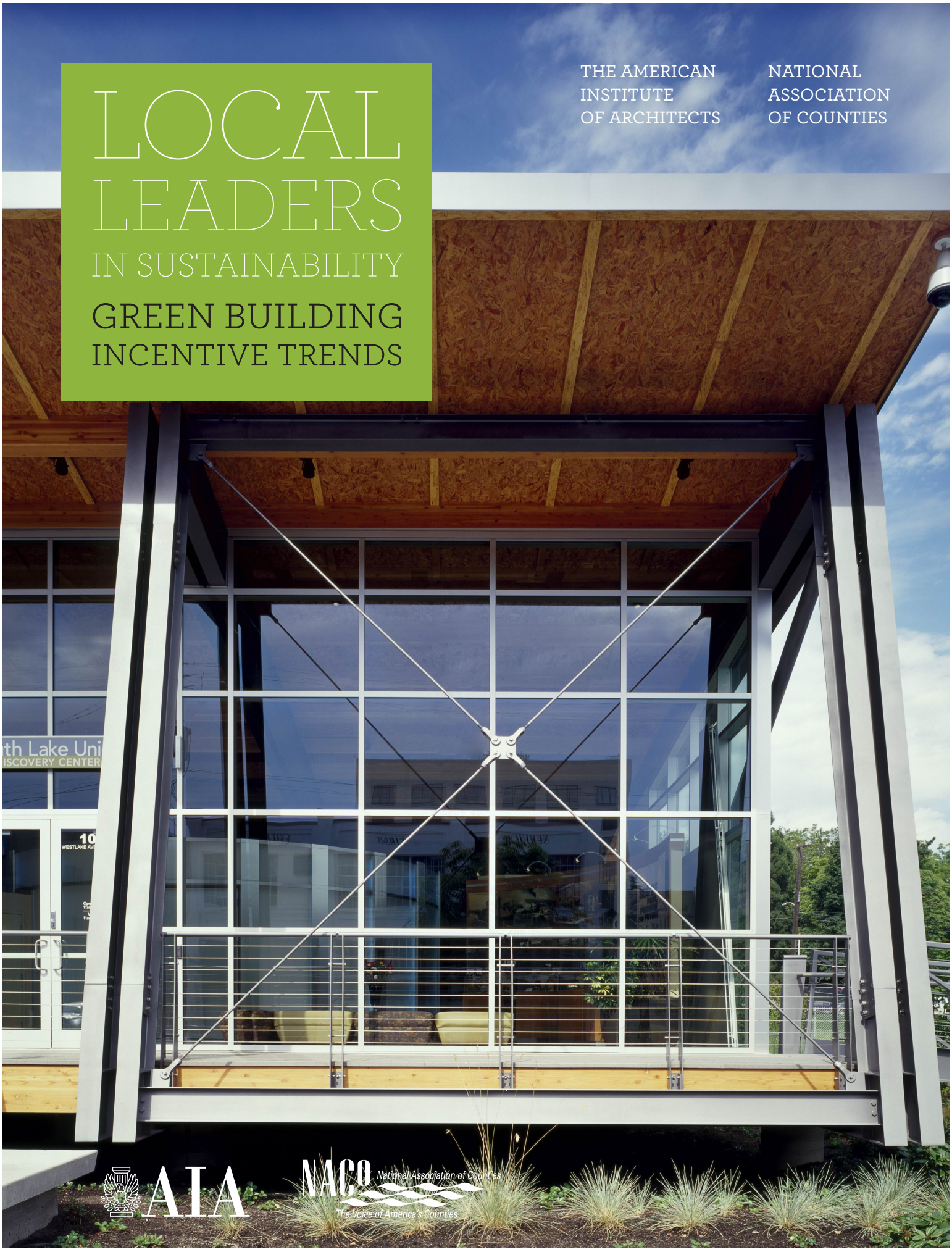
LOCAL LEADERS IN SUSTAINABILITY

GREEN BUILDING INCENTIVE TRENDS

THE AMERICAN INSTITUTE OF ARCHITECTS

NATIONAL ASSOCIATION OF COUNTIES



ABOUT

The American Institute of Architects (AIA)

Founded in 1857, the AIA is the leading professional membership association for licensed architects, emerging professionals, and licensed partners. The AIA has more than 80,000 members and nearly 300 state and local chapters. The AIA serves as the voice of the architecture profession and a resource for its members in service to society; it carries out its goal through advocacy, information, and community. Through various programs and initiatives, the AIA brings together architects and other professionals from across the country to provide direction for communities seeking to improve their sustainability. The American Institute of Architects drives positive change through the power of design.

National Association of Counties (NACo)

The National Association of Counties (NACo) is the only national organization that represents county governments in the U.S. NACo provides essential services to the nation's 3,068 counties. NACo advances issues with a unified voice before the federal government, improves the public's understanding of county government, assists counties in finding and sharing innovative solutions through education and research, and provides value-added services to save counties and taxpayers money.

Local Leaders in Sustainability: Green Building Incentive Trends – Strengthening Communities, Building Green Economies is the sixth in a series of reports focusing on green building at the local level.
www.aia.org/localleaders

AIA
Brooks Rainwater
Director of Local Relations

Zachary Hart
Manager of State Relations

Tatyana Brown
Local Relations Consultant

NACo
Jared Lang
Green Government Initiative Program Manager

Cindy Wasser
Community Services Assistant

Editing
Russell Fortmeyer

Design
Skelton Design

COVER: Discovery Center, AIA/COTE 2008 Top Ten Green Project award recipient, South Lake Union; architect: Miller/Hull Partnership; photo by Lara Swimmer Photography

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CONTENTS

1 Foreword

2 Executive Summary

4 Green Building Incentives

5 Selecting Appropriate Incentives

9 Implementing Incentive Programs

11 Case Studies

12 Bernalillo County, NM
Impact Fee Reduction

15 Cincinnati, OH
CRA Property Tax Abatement

19 King County, WA
Green Building Grants

23 Santa Barbara County, CA
Innovative Building Review and Financing

28 Arlington County, VA
Density Bonus

32 Chicago, IL
Expedited Permitting

36 San Diego County, CA
Fee Discounts and Expedited Review

39 Alameda County, CA
Critical Design Assistance

43 Sarasota County, FL
Broad Green Building Promotion

47 Green Building Incentive Trends

50 Evaluating Incentive Effectiveness

52 Works Cited

53 Appendix
Definitions
Cost-Benefit Analysis
County Incentive Examples
City Incentive Examples

FOREWORD

GREEN INCENTIVES PROMOTE SUSTAINABLE DEVELOPMENT, JOBS, AND STRONG COMMUNITIES. GOVERNMENTS AT ALL LEVELS HAVE LONG USED INCENTIVE PROGRAMS TO PROMOTE ECONOMIC DEVELOPMENT AND CREATE JOBS. IN THE PAST TWO DECADES, THESE INCENTIVES HAVE ALSO BEEN INCREASINGLY FASHIONED TO SUPPORT GREEN BUILDING AND RELATED SUSTAINABILITY INITIATIVES.

The combination of spurring development and jobs while also focusing on important societal values like better health, energy efficiency, and enhanced productivity presents exciting opportunities both for the governments that create these programs, and for those that benefit from them. Numerous models of green incentives have been developed over the years with varying levels of success. While the economic downturn has had a devastating impact on local government resources, the economy will grow again and development activity will increase. If local governments act now, our nation's communities can be well-positioned to build green in the near future.

This report seeks to analyze green incentives and provide best practice examples of communities that have implemented these programs in order to support a focused discussion of how the incentives can work best in your community.

In 2008, the American Institute of Architects (AIA) developed a white paper in conjunction with its partners, which included the National Association of Counties (NACo), at the Developers Roundtable held in Washington, D.C. that year. This white paper, *Local Leaders in Sustainability: Green Incentives*, provided an overview of the different kinds of green building incentives in use throughout the country.

In addition to explaining the most prevalent incentives, the report highlighted a few examples of each incentive type with an overview of several specific municipal and county programs.

The *Green Incentives* white paper generated a great deal of interest from local governments. As the green building industry continues to grow, communities across the U.S. have expressed the desire to learn more about their policy options, and to what extent they have been successful in practice.

In response to this continued interest, the AIA has joined with NACo to publish the current report, Green Building Incentive Trends: *Strengthening Communities, Building Green Economies*. The purpose of this report is to assist municipal officials and policymakers that seek to develop or strengthen their own green incentives programs. It examines green incentive policies with an eye toward their fiscal impact, implementation strategies, and overall effectiveness. Green Building Incentive Trends: *Strengthening Communities, Building Green Economies* is an action-oriented tool to help develop strong, sustainable communities in every corner of this country.

EXECUTIVE SUMMARY

GREEN INCENTIVES WORK BEST WHEN COMBINED WITH ROBUST ADVOCACY EFFORTS AND STRONG SUPPORT FROM THE PUBLIC.

Green Building Incentive Trends: *Strengthening Communities, Building Green Economies* is a guidebook to assist local government leaders to develop successful green incentives for their communities. Local governments in recent years have already implemented numerous "green incentives." These programs have met with varying levels of success. This report seeks to analyze those initiatives and provide best practice examples. Its goal is to provide a focused analysis on the green incentives that work best for different communities.

This report is a more in-depth examination of the state of green incentives that follows up a 2008 report, *Local Leaders in Sustainability: Green Incentives*. The American Institute of Architects (AIA) developed the 2008 report in conjunction with its partners at the Developers Roundtable in Washington, D.C. to provide an overview of the different green building incentives that were in use throughout the country.

State and local government green building incentives can range from options that are virtually cost-free to those that involve direct local government investment. An examination of these green incentives indicates that the most attractive incentives to the private sector are tax incentives, density bonuses, and expedited permitting. *Tax Incentives* are the reduction of taxes for implementing specific green measures and certifications. *Density/Floor Area Ratio Bonuses* are the provision of height bonuses, floor/area ratio bonuses, reductions in landscaping requirements, and counting green roof space as landscaping/open space in return for achieving a certain green building rating. *Expedited Permitting* is the streamlining of the permitting process for building, plan, and site permits on projects with specific green measures and certifications.

The findings of this report indicate that selecting appropriate incentives depends primarily on a local government's financial situation and its desired impact on the building industry. Regardless of which incentive is pursued, it is vital that any policy be as simple as possible to implement. Green incentives work best when combined with robust advocacy efforts and strong support from the public. *Strengthening Communities, Building Green Economies* also focuses on five key areas of green incentives, which include the financial costs, oversight structure, local political and cultural environment, limits to power, and industry engagement.

Green incentive trends are explored in-depth in the case study component of this publication. The case studies are meant to provide those in the public sector with actionable data because one of the ultimate purposes in collecting this information is to create quantifiable best practices that communities can use as they create or strengthen their own green incentive efforts.

The programs that were chosen for the case studies in this report provide a cross-section of American green building policy. A particular focus has been placed on replicable best practices and regional diversity. Local communities have the ability to choose their own incentives and, while they have taken many ideas from others, on the whole they have been quite inventive in developing unique green building programs. The incentives profiled in the following pages follow

this model and break down along four key focus areas: financial assistance, land use credits, government process incentives, and education and marketing assistance. The profiled communities include:

- Bernalillo County, NM
  Impact Fee Reduction
- Cincinnati, OH
  CRA Property Tax Abatement
- King County, WA
  Green Building Grants
- Santa Barbara County, CA
  Innovative Building Review and Financing
- Arlington County, VA
  Density Bonus
- Chicago, IL
  Expedited Permitting
- San Diego County, CA
  Fee Discounts and Expedited Review
- Alameda County, CA
  Critical Design Assistance
- Sarasota County, FL
  Broad Green Building Promotion

Since the *2008 Local Leaders in Sustainability: Green Incentives* publication, significant changes have taken place with respect to the ways that local governments leverage incentives to promote green building. The key conclusions are that funding is limited, green building is becoming "normal," and some incentives have outlived their useful life and are now ineffective. A holistic approach is important, energy efficiency and renewable energy incentives have attracted critical attention, and the regulation of green building through codes is gathering steam.

The city and county examples highlighted in this publication indicate that local green building incentives can be useful tools for shifting the local building market toward green, sustainable development.

GREEN BUILDING INCENTIVES

STATE AND LOCAL GOVERNMENT GREEN BUILDING INCENTIVES CAN RANGE FROM OPTIONS THAT ARE VIRTUALLY COST-FREE TO THOSE THAT INVOLVE DIRECT LOCAL GOVERNMENT INVESTMENT.

The AIA and its partners undertook a comprehensive review of local government green building incentives in 2008. At that time, the AIA gathered a group of leading architects, developers, real estate financiers, retailers, and building owners to identify active incentives that had a wide appeal to both the public and private sectors.

This report builds on those insights, as well as the work of the National Association of Counties (NACo) and several other organizations, including Cushman & Wakefield, the National Renewable Energy Laboratory (NREL), the American Council for an Energy-Efficient Economy (ACEEE), and the National Association of Industrial and Office Properties Research Foundation (NAIOP). For more information on the associated work, please see the Works Cited section at the end of this publication.

State and local government green building incentives can range from options that are virtually cost-free to those that involve direct local government investment. The following is a list of the most common incentive types offered by local governments across the United States:

- Tax Incentives;
- Bonus Density;
- Expedited Permitting;
- Net Metering;
- Feed-in tariffs;
- Grants (including fee subsidization);
- Loans;
- Insurance;
- Technical Assistance/ Design Assistance;
- Permit/Zone Fee Reductions;
- Rebates and Discounts on Environmental Products (e.g., Energy Star); and
- Leasing Assistance.

An examination of these green incentives indicates that the most attractive incentives to the private sector are:

1. Tax Incentives – the reduction of taxes for implementing specific green measures and certifications;
2. Density/Floor Area Ratio Bonuses – the provision of height bonuses, floor/area ratio bonuses, reductions in landscaping requirements, and counting green roof space as landscaping/open space in return for achieving a certain green building rating; and
3. Expedited Permitting – the streamlining of the permitting process for building, planning, and site permits on projects that achieve specific green measures and certifications.

Local governments have also found that the most effective way to extend the life of incentive programs is to leverage private money through loan programs. These programs often consist of either a revolving loan program, where smaller low-interest loans are granted for green projects and financed through a large loan pool, or a loan loss reserve fund, which may increase available incentive dollars by spreading risk to various interested parties.

For more detailed definitions and applications of the incentives listed here, please refer to the Green Building Incentive Matrix in the Appendix and the 2008 Local Leaders in Sustainability report.

SELECTING APPROPRIATE INCENTIVES

THE MONETARY COSTS OF DIFFERENT INCENTIVES VARY WIDELY.

When it comes to determining which incentives will best meet their needs, local governments have a range of attractive options. The findings of this report indicate that selecting appropriate incentives depends primarily on a local government's financial situation and its desired impact on the building industry. Green incentives work best when they are based on a sound methodology combined with robust advocacy efforts and strong support from the public. When either developing or implementing green building incentives, local governments should weigh the potential effectiveness of the incentive against the following key criteria:

- Financial costs;
- Oversight structure;
- Local political and cultural environment;
- Limits to power; and
- Industry engagement.

The significance of each of these criteria, which are explained further below, will differ widely for each local government. Incentive programs should therefore begin with an internal research and discussion phase that incorporates stakeholders from all relevant agencies and departments within the government. Continued engagement with relevant industry stakeholders should follow. Further guidance for the creation and introduction of incentive programs, including an outline of potential steps toward implementation, is outlined in the next section.

Regardless of which incentive is pursued, it is vital that any policy be as simple as possible to implement. When applied to public incentive programs, simplicity generally means the incentive can be easily explained in an elevator pitch (i.e. one minute or less), addresses a common practice or development, and is not encumbered with difficult paperwork and application processes that may deter interest.

FINANCIAL COSTS

The monetary costs of different incentives vary widely. Tax rebates and other purely financial incentives are obviously the most expensive. By contrast, incentives that involve streamlining government processes are often much less financially taxing to implement.

The additional costs to building green are declining in many communities across the country. Recent studies, such as Davis Langdon's report, *Cost of Green Revisited: Reexamining the Feasibility and Cost Impact of Sustainable Design in the Light of Increased Market Adoption*, have shown

that in many cases green buildings cost less to construct than similar conventional buildings, even though green design is often perceived as an "add-on" to a base building.

The building process remains complex, with many internal and external market influences, and, thus, changes to the process can be difficult and time-consuming to implement. In those communities that experience higher costs to build green, financial incentives can go a long way to make green design strategies and specific technologies economically viable. The 2007 NAIOP Report on green building incentives notes that financial incentives were the most common incentive type at the time, suggesting that state and local governments recognized this as an effective way to subsidize the sustainability efforts of developers.

The consideration of an incentive's financial costs is unavoidable in an environment where many local governments face fiscal challenges. Tight budgets are making financial incentives impractical for many communities at a time when the development community needs monetary support.

However, financial incentives are not the only way to support green building. Not least of all, these difficult times have underscored the potential power of awards and recognition. In business, decisions must also be made quickly and expediting the building process can sometimes result in significant financial savings. Internal adjustments to the way local governments conduct business, such as giving priority review to building projects that adopt specific sustainable criteria, can be undertaken with the relatively minor expenses of staff training and some limited public promotion. Local governments should work closely with their design and development communities to understand their financial challenges related to government procedures and oversight, so incentives can be developed to appropriately address them. Undertaking such internal re-organizations during lulls in the building sector can position communities to re-emerge with vigor when the economy recovers.

TO SIMPLIFY PROGRAM ADMINISTRATION, LOCAL GOVERNMENTS TYPICALLY INTEGRATE INCENTIVES INTO THEIR REGULAR BUILDING PERMIT PROCESSES. DEVELOPERS GREATLY APPRECIATE SUBMITTING FEWER APPLICATIONS AND INTERFACING WITH ONLY ONE CONTACT.

OVERSIGHT STRUCTURE

Different departments and players within local governments will be responsible for implementing different types of incentives. The planning and building departments are the traditional administrators of incentive programs, but this varies widely across communities. Executive offices, tax collectors, and even quasi-governmental organizations have implemented incentive programs in the past.

To simplify program administration, local governments typically integrate incentives into their regular building permit processes. Developers greatly appreciate submitting fewer applications and interfacing with only one contact. It is also helpful to organize all incentives in single publications or, preferably, public websites that are continuously updated with new information. Since building projects are undertaken on precise schedules based on legal contracts, the availability of incentives can often lead to specific design decisions over others and those decisions depend on obtaining reliable, current information on available incentives. Often, such websites might also include links to other publicly available incentive programs, perhaps from state and federal government sources, which may help to encourage more green building projects in the local community.

Furthermore, a point of contact for each incentive program should be provided, including a name, phone number, and/or e-mail address of the public official responsible for oversight. It is important that developers of green building projects have confidence in the incentive program in order for the incentive to penetrate the market.

LOCAL POLITICAL AND CULTURAL ENVIRONMENT

Different incentive types bring different political challenges. Incentives that are financially expensive for local governments often require community engagement and can be politically difficult to implement. Government process incentives, on the contrary, can often be created internally among officials and staff.

CERTAIN GREEN BUILDING INCENTIVES – PARTICULARLY THE LAND-USE INCENTIVES THAT ENCOURAGE DENSITY, TALLER BUILDINGS, AND MIXED-USE DEVELOPMENT PATTERNS – MUST BE COMPATIBLE WITH A COMMUNITY'S CULTURE.

This is not to say that all forms of incentives should not be considered, only that government staff should consider the political and cultural tenability of incentive programs. Where governments currently have not offered green building incentives, it may be more productive to begin with incentives that require less financial investment to help develop or change the local culture toward one more tolerant of progressive incentives that may represent more risk. Demonstrating a "small win" with a simple incentive, like expedited plan review of green building projects, can help build momentum toward larger incentives that may take more time to pay back. At the same time, it is unrealistic to expect each incentive program to satisfy all potential stakeholders, so local governments should account for some criticism and provide opportunities for feedback and participation in incentive development as a way to forestall concerns.

Certain green building incentives—particularly the land-use incentives that encourage density, taller buildings, and mixed-use development patterns—must be compatible with a community's culture. Density bonuses can often be controversial. However, this type of incentive can gain support from the majority of residents when employed in a community such as Arlington County, Virginia, which has residents that are familiar with high-density, transit-oriented development.

To reduce political issues and increase program flexibility, local governments can designate public-private authorities to manage programs. An agency with an independent revenue stream, such as a waste authority that can secure waste tipping fees, may be uniquely positioned to offer more valuable financial incentives to developers without extensive scrutiny. For example, Alameda County in California was able to establish a green building program within StopWaste.org, the joint-power public agency of the county's Source Reduction and Recycling Boards. Program staff built the connection between reduced construction waste from sustainable building practices and the organization's existing waste reduction goals. StopWaste.org is able to offer comprehensive training, design assistance, and, until recently, between $30,000 and $100,000 in grants toward strategies that divert construction waste from landfills.

LIMITS TO POWER

When selecting incentives, it is crucial to consider the ones that are within a local government's power to enact. Appropriate incentives vary significantly based on the limits that can arise from state and federal control, as well as from the local residents. For example, some local governments lack the ability to raise new revenues through taxation, which limits their ability to fund new incentives.

Federal and state grants may only be available to fund incentives for limited periods of time. Some communities find that local government incentives become available and disappear depending on the availability of state and federal funds. In 2009, the Environment and Energy Conservation Block Grant (EECBG) program enabled many communities to offer energy efficiency and renewable energy incentives. However, many of these will expire in 2012, after the funds have been depleted. It is important to ensure that public communication regarding incentives is continuously updated to reflect the current situation.

State and local governments often have back-and-forth relationships, encouraging each other to adopt stricter requirements. For instance, California's state energy standards set minimum requirements for green building incentives offered by local governments. Originally, it was Santa Barbara County's robust green building program that was used to develop the standards.

In addition to influencing the requirements and incentives that are available, states can play a role in tracking the impact of local government incentives. For instance, state-level energy disclosure policies can enable or hinder local governments that would like to request energy data from utilities or property owners. For example, Arlington County, Virginia is one of the many communities that cannot request energy data from property owners without state approval.

There are opportunities for engaging utilities and property owners to address issues such as energy data sharing by working with non-governmental organizations. For instance, Business Improvement District Associations may represent multiple property owners in a single area and may be more willing to implement green building programs in a larger precinct.

For example, the Wilshire Business Improvement District in Los Angeles, California, has used its own budget to fund a district-wide energy auditing process to identify energy conservation measures that could be easily implemented by property owners and paid for by energy cost savings. Such programs could be encouraged by local governments and developed toward meeting the requirements of government incentive programs. The latter could assist in funding the conservation measures, which would be paid back through energy savings. Such a program would extend a city's or county's sphere of influence to achieve greater green building improvements.

INDUSTRY ENGAGEMENT

When designing and implementing incentives, all the local government officials interviewed for this report noted that cooperation with the development community is key. In their capacity as community leaders, local governments are building ongoing dialogue with the development community. Obtaining the industry's input is crucial to understanding the market, determining the gaps in current policies, and crafting appropriate incentives. Engaging the development community throughout the process can raise an initiative's public profile, help to create streamlined application processes, and ensure an effective launch.

WHEN DESIGNING AND IMPLEMENTING INCENTIVES, ALL THE LOCAL GOVERNMENT OFFICIALS INTERVIEWED FOR THIS REPORT NOTED THAT COOPERATION WITH THE DEVELOPMENT COMMUNITY IS KEY.

In 2007, the National Association of Industrial and Office Properties (NAIOP) interviewed several developers to gauge their perspective on green building incentives. It noted that financial incentives are highly desirable, as long as they enhance the project and do not offer an overly complex application process. It also noted that some government-process incentives can be more valuable to developers than financial ones. As one of the developers interviewed by NAIOP explained, "A proactive city that supports sustainability and streamlines the process would really help. Time is money for developers, owners, and contractors."

Engagement of industry practitioners should also be transparent and occur, when possible, in public forums. Where alliances or partnerships with industry organizations are formed in support of specific incentives, these should be clearly explained in public documents pertaining to the particular incentive.

Where incentives address specific technologies, such as renewable energy systems, for example, local government staff should ensure that the appropriate industry channels are alerted to the incentive development process so that all interested stakeholders can participate in feedback and review for the government's benefit. Where technology must meet certain criteria for an incentive, such as renewable energy systems with zero carbon emissions, such criteria should be clearly stated and agreed upon with stakeholders prior to implementing the incentive. Draft releases for interested party review and comment are a positive approach to heading off any concerns that may arise from industry or other interested stakeholders.

IMPLEMENTING INCENTIVE PROGRAMS

ONCE A LOCAL GOVERNMENT HAS IDENTIFIED THE ENTITY RESPONSIBLE FOR THE INCENTIVE PROGRAM, THE IMPLEMENTATION PROCESS CAN BEGIN.

The criteria listed in the previous section are imperative for communities to examine as they develop their incentive programs. Equally important, however, are the steps communities undertake to implement the programs once they are developed. Similar to the same considerations for the incentive criteria, the structures of administration and oversight within each city or county government can differ widely. Therefore, each local government should establish a clear line of incentive development, implementation, and facilitation that can be easily communicated to the development community. Green building incentive programs may be developed by several departments or agencies within the local government, but the administration of the programs themselves is more effective when it is centralized in one place throughout the entire process.

Once a local government has identified the entity responsible for the incentive program, the implementation process can begin. To aid in this process, the following implementation steps and questions have been developed as a checklist that can assist communities in ensuring their green building incentive programs are robust and publicly accessible. This is not an exhaustive list, nor should every step or question be considered mandatory, but it should help point communities toward successful incentive program adoption.

Identify the need.

a. Does the city have environmental goals that could be addressed through development incentives?
b. Are there successful programs in other counties or cities that could address a need in the local district?
c. Is there interest from the development community for particular incentives?
d. Have stakeholders provided feedback about government processes or oversight that could be addressed through an incentive program?
e. Establish a working group within the local government charged with representing internal stakeholders and reaching out to external stakeholders.

Research the need.

a. Has a similar incentive been implemented successfully or unsuccessfully in another place? Perform a "gap analysis" of an existing incentive from another jurisdiction to understand how the incentive may need to be adapted to the local community.
b. Could the incentive's benefits be multiplied through synergies with other existing incentive programs?
c. Could an incentive address a significant number of projects, rather than a token amount, across a diversity of project types, budgets, and locations within the city or county?

d. How is the need currently met, if at all? Is this expected to change and, if not, what will allow that to occur or prevent that from happening?

Gather feedback and criteria.

a. Engage external stakeholders through public meetings, question and answer sessions, and more informal meetings. Document this process and track changes in a draft of the incentive, with changes or suggestions referenced to the stakeholder who submitted it.
b. Communicate each draft of the incentive during the incentive development process through an email list that is publicly accessible.
c. Establish criteria for the incentive as part of this feedback process.
d. Undertake an internal cost-benefit analysis for the expected life of the incentive as part of a feasibility process. Such an analysis could also be provided by external parties, such as consortiums of industry stakeholders, where appropriate.
e. Establish a timeline for the incentive, including dates for stakeholder engagement, implementation, availability, due dates for applications and decisions on awards, and program cessation.

Develop the incentive.

a. Develop a formal draft of the incentive for final review and comment.
b. Ensure that relevant internal local government staff and departments have signed off on the incentive program and that necessary political processes have been duly followed.
c. Provide all research and feedback documentation, such as meeting minutes and draft markups of the incentive, in a freely available manner, such as a public website.

Release the incentive.

a. Release the final version of the incentive program through various media and hold a public meeting to explain the program and answer questions about its implementation and application process and criteria, if appropriate.

Review the incentive.

a. Once the incentive is active, it is important to track its success by accounting for the number of projects that take advantage of the program, cost to the local government, and the increase in green building practices the incentive encourages.
b. Solicit feedback from developers who have participated in the incentive program in order to make ongoing improvements to the incentive process, perhaps as part of a second round for the program.
c. Regardless of whether the results of the program were satisfactory, it is important to document the lessons learned from the program in order to inform the development of future incentives.

While each local government will naturally develop its own approach to green building incentive programs, these are worthy questions to consider. Analyzing the feasibility and lessons learned is important because the main goal of developing any green incentive policy is to reach a day when it is no longer needed, because green building has become the way all buildings are designed and built. The following section offers details on some communities that are well on their way toward a market where sustainable building has become a norm.

CASE STUDIES

THE PROFILED COMMUNITIES INCLUDE:

- Bernalillo County, NM
  Impact Fee Reduction
- Cincinnati, OH
  CRA Property Tax Abatement
- King County, WA
  Green Building Grants
- Santa Barbara County, CA
  Innovative Building Review and Financing
- Arlington County, VA
  Density Bonus
- Chicago, IL
  Expedited Permitting
- San Diego County, CA
  Fee Discounts and Expedited Review
- Alameda County, CA
  Critical Design Assistance
- Sarasota County, FL
  Broad Green Building Promotion

Green building programs are becoming standard practice in communities across America, and important trends are materializing. Many of these programs would not be possible without the incentives developed to support sustainable design and construction. These trends and many others are explored in the case study section that follows. The case studies are meant to provide those in the public sector with actionable data because one of the ultimate purposes in collecting this information is to create quantifiable best practices that communities can use as they create or strengthen their own green building programs.

The programs that were chosen for the case studies in this report provide an excellent cross-section of American green building policy. A particular focus has been placed on replicable best practices and regional diversity. The current state of green building laws and the references to standards they may cite vary across the country, and are a good representation of the American federal system of government.

Local communities have the ability to choose their own incentives and, while they have taken many ideas from others, on the whole they have been quite inventive at creating unique aspects in many of their green building programs. The incentives profiled in the following pages break down along four key focus areas: financial assistance, land use credits, government process incentives, and education and marketing assistance.

The case studies themselves are organized in a similar structure so they are more accessible and easily comparable to one another. Statistics and demographic data are provided—based on 2010 census data—including land area, population, population density, median household income, education levels, transit data, and annual building permits issued. The type of incentive is categorized and accompanied by a general overview of the intent of the incentive and the public agency responsible for implementation and administration.

BERNALILLO COUNTY, NM

Impact Fee Reduction

BERNALILLO COUNTY, NM

Impact Fee Reduction

GREEN BUILDING INCENTIVE

Scope
Residential

Type of Incentive
Impact Fee Reduction

KEY COUNTY STATISTICS

Land Area
1,160.83 square miles

Population
662,564

Population Density
570.8 people per square mile

Median Household Income
$47,624

Education
17.7% bachelor's
13.8% graduate or professional

Means of Commuting to Work
89.7% private vehicle
2.2% public transport
3.8% other means

Building Permits
1,133

In 2009, the Bernalillo County Board temporarily reduced all residential impact fees by 50% in order to encourage development. At the same time, the county temporarily established a higher 75% impact fee reduction for sustainable residential construction certified through Build Green NM or the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) rating program, which awards projects certification levels of certified, silver, gold, and platinum based on performance achievement.

HISTORY AND IMPLEMENTATION

The State of New Mexico set a minimum standard for communities offering sustainable tax credits, which Bernalillo County adopted. To qualify for the incentive, the owner or developer must submit certification that the construction meets one of the following options:

1. A HERS (Home Energy Rating System) score of 60 or lower, which indicates that a residence is 40% more efficient than a baseline home built according to the 2004 code.
2. A level of "Silver" or higher in either the Build Green NM or LEED for Homes.

Build Green NM is a holistic green building standard launched in 2006 at the National Green Building Conference in Albuquerque. It recognizes sustainability in seven key areas, including lot design, preparation, and development; resource efficiency; energy efficiency; and water efficiency. The standard became a pilot for the Green Building Initiative, a national program that helps local Home Builders Associations begin green building programs.

PHOTOS: Albuquerque Job Corps Dormitory, Albuquerque; architect: Dyron Murphy Architects, P.C.

BERNALILLO COUNTY, NM

Impact Fee Reduction

In order to earn the incentives, developers must submit their permit applications and the estimated fees for standard residential construction (already 50% lower than those before 2009). Before a Certificate of Occupancy is issued, the owner or developer must provide the county with the certification packet, including the rating system certification level awarded. The county then issues a check for 25% of the impact fees paid.

The county's efforts to encourage green development coincided with a similar initiative by the City of Albuquerque. Albuquerque offers a 100% impact fee reduction incentive to developers achieving a LEED or Build Green NM "Silver" level certification. By requiring the same level of certification at both the county and city level, the programs have made the process of applying for the incentive much easier for developers.

The administrative resolution that established the impact fee reduction in 2009 was temporary, but has been extended with a few periods of lapse. The county is rewriting its Capital Improvement Plan and hopes to incorporate the impact fee reduction to make it more permanently integrated in the permitting process. As the economy recovers, the impact fees for standard construction will revert back to normal. The sustainable building incentive will be a 50% reduction from the standard fee schedule. Future green building initiatives by the Bernalillo County's Planning Department may include a focus on improved indoor environmental quality and homeowner education on topics such as energy and water conservation, home maintenance, and other important environmental focus areas.

COSTS, BENEFITS, AND CHALLENGES

Impact fees vary based on project structure and design but, on average, developers save approximately $1,500. Nick Hamm, the County's impact fee administrator, noted that the size of the incentive sends a clear message to developers about the County's commitment to sustainability. Unfortunately, the downturn in the economy has allowed less than ten developers to take advantage of the incentive since 2009.

ADDITIONAL RESOURCES

www.bernco.gov/zoning-building-and-planning/

CINCINNATI, OH

CRA PROPERTY TAX ABATEMENT

CINCINNATI, OH

CRA Property Tax Abatement

GREEN BUILDING INCENTIVE

Scope
Commercial and Residential

Type of Incentive
Property Tax Abatement

KEY COUNTY STATISTICS

Land Area
77.94 square miles

Population
296,943

Population Density
3,809.8 people per square mile

Median Household Income
$34,110

Education
18.4% bachelor's
12.9% graduate or professional

Means of Commuting to Work
82.6% private vehicle
8.3% public transport
5.1% other means

The Cincinnati LEED-Community Reinvestment Area, or LEED-CRA, tax abatement, which applies to both commercial and residential construction and renovation projects, is one of the most generous tax incentives for green building in the country. Commercial and multifamily residential projects that contain more than four units are eligible to receive a property tax abatement of up to 75% of the increased value of the property improvement. The tax abatement lasts for a maximum of 15 years for new construction projects and 12 years for renovations. Residential projects of one to three units are eligible for 100% tax abatement lasting 15 years for new construction and 10 years for renovations, with a limit of $546,400 in total value.

HISTORY AND IMPLEMENTATION

Cincinnati's LEED-CRA tax abatement was created to advance two intersecting City interests. The first was to continue encouraging urban development within the city. The second aim was to nourish an emerging interest in sustainability among the public and the construction and development communities.

PHOTOS: The Herald Building, Cincinnati; architect: DNK Architects

CINCINNATI, OH
CRA Property Tax Abatement

The LEED-CRA incentive was designed at a time when sustainability was garnering attention throughout the city. In 2006, the Cincinnati City Council voted to create the Office of Environmental Quality (OEQ), replacing a previous environmental agency that had been defunded several years earlier. The OEQ is involved in projects addressing air quality, climate change, and the creation of the Green Cincinnati Plan.

In 2003, the City began a 10-year project to renovate the aging buildings of the Cincinnati Public Schools district. The Cincinnati Board of Education then passed a resolution in 2007 requiring other schools in the CPS construction plan to earn a LEED Silver certification. Alan Warner, AIA, chairman of the AIA Ohio Committee on the Environment (COTE), credits the public sector's commitment to green building for spreading awareness of the practice in the private sector. "A lot of the resistance from contractors because green building is new and different faded away once they actually did it," says Warner. "Many said they were against it, but they are all for it now." While architects and contractors learned more about the design and construction of green buildings, developers came to realize the cost savings and marketing benefits associated with them. The City and the public are now working on PLAN CINCINNATI, which will be the first comprehensive city plan since 1980. The new document will emphasize smart growth and downtown infill.

As Cincinnati continued to build momentum in sustainability and green building, it simultaneously grappled with the challenges of declining population and losing investment to the surrounding suburbs. Although the Cincinnati metropolitan area is the largest in Ohio with over 2,000,000 people, the city itself has seen a steady decrease in population over the last 60 years. The 2010 Census, which estimated the Cincinnati population at 296,943, marked the first time since 1900 that the city's population has been short of 300,000. In order to attract more residents and commerce, the City designated itself a Community Reinvestment Area (CRA). This action allowed it to take advantage of the Ohio state program that allows municipalities to offer tax abatements for commercial and residential renovation and new construction projects.

PHOTO: Sands Montessori Public School, Cincinnati; architect: SHP Leading Design; Photo by Joe Harrison

CINCINNATI, OH
CRA Property Tax Abatement

The original non-LEED CRA tax incentive is similar to the LEED-CRA program, with a few key differences. To qualify for the non-LEED incentive, commercial projects are required to result in net job creation or retention. They must also demonstrate that the tax abatement is critical to the project's financial viability. The city council recognized that developers were interested in doing more green construction and used the existing CRA tax abatement to promote building projects that adopted LEED rating targets. The LEED-CRA program offers several additional benefits to developers and building owners who choose to build green. For commercial building, it rewards any project that achieves a minimum of LEED certification, without requiring it to create jobs or asking the developer to demonstrate financial need. Residential projects of one to three units can save a maximum of $546,000 in property taxes over the life of the tax abatement, an improvement over the original program's $300,500 limit. Additionally, construction projects that achieve a LEED rating can receive the abatement for 15 years, as opposed to the maximum 10-year term stipulated by the regular CRA abatement.

BENEFITS

Since its inception in 2007, Cincinnati has awarded the LEED-CRA tax abatement to five commercial buildings. Another 19 projects have been approved for the abatement, but have not yet received their LEED certification. The LEED-CRA tax abatement has proved to be attractive to developers. As the economy continues to recover, the program should lead to accelerated green building in Cincinnati. At a time when banks are hesitant to lend, the tax abatement's generous benefits are a critical tool in helping developers who adopt LEED achieve a faster return on investment.

LESSONS LEARNED

When creating the LEED-CRA tax abatement, the city council and the architects and developers the council consulted were aware of the need to simplify the process of earning the incentive. Given the industry's limited knowledge at the time on green building techniques and the process of acquiring LEED certification, the council decided to grant the same incentive for all four levels of LEED certification. This straightforward structure made it easier for Cincinnati developers to take advantage of the abatement, although there has been some discussion of a graduated system that rewards higher levels of certification with more generous abatements.

The final component of the program's success was to avoid the common pitfall with property tax incentives, which, in general, are perceived to benefit only the end-user. For developers who lease out the space, the value of property tax abatement is easily apparent; for those who wish to sell the building, the benefit is less clear. In order to avoid this dynamic, Cincinnati allowed developers to transfer the property tax abatement to the building's new owner, provided they notify the City of the transaction. This policy supports developers by making the property more attractive to buyers, as well as increasing its sale price.

KING COUNTY, WA

Green Building Grants

KING COUNTY, WA
Green Building Grants

GREEN BUILDING INCENTIVE

Scope
Commercial and Residential

Type of Incentive
Green Building Grants

KEY COUNTY FACTS

Land Area
2,115.57 sqare miles

Population
1,931,249

Population Density
912.9 people per square mile

Median Household Income
$66,174

Education
28.7% bachelor's
16.6% graduate or professional

Means of Commuting to Work
75.6% private vehicle
10.8% public transport
9.2% other means

Building Permits
6,020

King County's GreenTools program is dedicated to supporting sustainability in the built environment. The program functions as an information clearinghouse where residents and developers can learn about the various aspects of sustainable building practice. It also offers technical assistance, supplies information on King County's environmental and sustainability policies, and provides grant funding for residential and commercial green building. The grants are funded through two programs. Commercial buildings are covered by the King County LEED Grants Program, now suspended owing to budgetary constraints. Residential projects are funded by the Master Builders Association of King and Snohomish Counties Built Green Grant Program; matching funds are also provided by the City of Seattle.

HISTORY AND IMPLEMENTATION

King County LEED Grants Program

The LEED Grants Program was created in 2006. The grants were meant to cover the "soft costs" of sustainable building such as energy modeling and consulting fees. Generally between $20,000 and $25,000, they were aimed at addressing local concerns about construction waste and water use. "There needed to be strategies to cover water and waste on top of LEED. We wanted to make sure that these grants would also serve our tax payers through mitigatious efforts," explains Patti Southard, the project manager for GreenTools.

With funding from the King County Wastewater Treatment Division and the King County Water and Land Resources Division, GreenTools has awarded grants to 16 projects, 11 of which have been built. While the modest value of the grants covers only a small part of a project's budget, the award is sufficient enough to encourage developers to build projects more sustainably than they would otherwise, says Southard. She estimates that 80% of the grant-receiving projects have achieved a higher level of LEED certification than originally planned.

Greater King County and Seattle Area Built Green Grant Program

The Built Green Grant Program is administered by the Built Green nonprofit organization, a partnership between the King and Snohomish Counties and their Master Builders Association. Built Green is a certification system for green residential buildings with ratings ranging from one to five stars. It was founded by the Master Builders Association in 1999 in response to the increase in green building programs sprouting up across the country, as well as to the Pacific Salmon Endangered Species Act. In an effort to minimize the home construction industry's harmful effects on salmon habitats, the founders designed a green building program that would target the most ecologically

KING COUNTY, WA
Green Building Grants

URBAN CANYON

One of the projects to receive a Built Green grant was Urban Canyon. The development of seven townhomes was awarded $10,000 to achieve a 5-star Built Green certification. The project was developed by green homebuilders, gProjects, with a budget of $3 million. While the grant made up for only a small fraction of Urban Canyon's overall cost, gProjects owner Graham Black says the grant was very important to the project symbolically. "I think, even if the money is not the driver, the notion of being recognized and winning [the incentive] also helps push you in favor of going to a higher level." In the case of smaller projects, the grant can be a significant financial factor. "It's a scale thing. If I was doing a single family house on spec and my total budget to build the house is $300,000 and I could receive a $5,000 grant in exchange for some tangible achievement, then that may be enough to help fuel green building in this down market."

harmful aspects of construction. Since 1999, the program has partnered with the governments of King and Snohomish Counties, certifying over 15,000 homes.

The Built Green Grant Program was developed in 2007 in partnership with King County GreenTools when the nonprofit Built Green received a WaterWorks grant for water conservation from the King County Water and Land Resources Division. "We convinced them that preventing the degradation of aquatic habitat before it occurred was a better expenditure than waiting until the degradation has already happened," says Built Green's director, Aaron Adelstein. Seattle Public Utilities and later the King County waste water treatment division, also stepped in to provide funding.

The Built Green Grant Program gives single-family residential projects that achieve a 4- or 5-star Built Green certification a financial reward to offset some of the additional costs associated with sustainable design and certification. Projects that attain a 4-star certification are eligible to receive up to $2,500; 5-star projects can obtain up to $5,000. In addition to attaining a 4- or 5-star certification, successful applicants must meet a variety of requirements meant to reduce the impacts of stormwater runoff, construction waste, energy consumption, and water use, as well as improve indoor air quality.

King County chose to fund grants for Built Green certification rather than LEED for Homes certification because they prefer the Built Green's regionally-specific energy modeling system. "LEED uses ASHRAE standards for energy modeling and we use regional standards that are more rigorous, so Built Green 4- and 5-star programs are more energy efficient. It doesn't mean we would never reward LEED for Homes certifications, but our preference is Built Green because of its regional performance measurements," explains the GreenTools project manager, Patti Southard.

BENEFITS

Since 2007, Built Green grants have been awarded to 32 residential projects, 23 of which have been built. Relative to other parts of the county, the environmentally conscious communities of King County have quickly taken to green building. Between 30% and 35% of the county's new housing developments are rated Built Green 3-star or higher. The LEED Grant Program has rewarded 16 projects, 11 of which have been completed.

At the present moment, King County has 15,000 certified Built Green Homes, 85 LEED Certified or higher-rated buildings and 259 LEED registered projects, excluding LEED for Home and "confidentially certified" projects. King County can now focus less on generating interest in green building and devote more resources to encouraging developers to build more ambitiously "green" projects. Because

PHOTOS: Discovery Center, AIA/COTE 2008 Top Ten Green Project award recipient, South Lake Union; architect: Miller/Hull Partnership; photos by Lara Swimmer Photography

of the local development community's strong interest in sustainable construction, the low value of the grants relative to the budget of a project is more effective than it would be in a less sustainable construction market. These grants are designed to encourage developers who are already interested in sustainable design to build even more sustainably. In order to increase the likelihood that incentives encourage a higher level of certification, Built Green requires applicants to demonstrate that the incentive will increase the number of green strategies included in the project and gives priority funding to applicants that have not yet achieved a 4- or 5-star Built Green certification. The grants also enable the county to ensure that grantees pursue the credits that align with its priorities. For example, the Built Green grants require that a builder achieve a 75% recycling rate for all construction and demolition debris, as well as earn at least 25% of the credits in the Site and Water category.

Stormwater Management

A 2009 study by the Seattle Department of Planning and Development, City Green Building, investigated the environmental performance of Built Green certified housing. The study revealed that, compared to baseline assumptions of water use, stormwater management, energy consumption, and construction waste, Built Green houses were delivering significant savings. Of the 366 Built Green townhome units, 185 achieved credits for reducing stormwater runoff by including vegetative roofing, roof infiltration systems, and the installation of pervious surfaces such as patios, pathways, and driveways. The estimated yearly runoff savings from these townhomes was 1,319,011 gallons per year, a 37% improvement.

Energy

According to the 2009 Built Green study, a survey of 493 Built Green certified homes indicated they saved an estimated total of 4,572.5 MMBTU per year (about 1,350 MW), with 1,988.2 MMBTU (582 MW) of those savings coming from the 94 4-star and 34 5-star certified units. Built Green 4-star and 5-star homes save an average of 3.5MWH and 7.6 MWH per year, respectively.

Construction Waste

According to the study, the 147 Built Green units that earned credits for diverting construction waste accounted for a total of 568 tons of recycled materials that would otherwise have ended up in a landfill.

BELOW: zHome, Issaquah; architect: David Vandervort Architects; photo by Aaron Ostrowsky

CHALLENGES

The greatest challenge for both grant programs has been securing funding during lean economic times. The 2011 LEED Grant Program was cancelled due to insufficient funds. The King County staff insists that the program is not dead and that they have plans to continue it in some form. "The survival of the program is based on the survival of the economy. We're trying to keep the grant program as fluid as possible so we don't lose it because, in government, when you cancel something, it's a done deal. We're trying to be as innovative as possible to keep it alive," Southard says. With the LEED Grants Program suspended, the GreenTools team focused on its partnership with Built Green and other public and private organizations to build zHome, a development of 10 townhomes in Issaquah, WA. By adhering to a strict series of benchmarks, zHome will be the first net zero/zero carbon multifamily project in the Northwest.

ADDITIONAL RESOURCES

www.greentools.us

SANTA BARBARA COUNTY, CA

Innovative Building Review and Financing

SANTA BARBARA, CA

Innovative Building Review and Financing

GREEN BUILDING INCENTIVE

Scope
All development types

Type of Incentive
Free Consultation, Expedited Review, Fee Reduction, Loan Loss Reserve Lending for Energy Improvements

Dedicated Department
Innovative Building Review Program is managed by the Planning and Safety Department. emPower Program is managed by Housing and Community Development.

KEY COUNTY STATISTICS

Land Area
2,735.09 square miles

Population
423,895

Population Density
155.0 people per square mile

Median Household Income
$56,767

Education
17.5% bachelor's
12.3% graduate or professional

Means of Commuting to Work
79.9% private vehicle
3.9% public transport
10.9% other means

Building Permits
400

PHOTOS: University of California, Santa Barbara, Donald Bren School of Environmental Science and Management and the Marine Sciences Building; architect: ZGF Architects LLP; photo at right by Adrian Velicescu previous photo by Timothy Hursley

Santa Barbara County's Innovative Building Review Program (IBRP) advises developers at no charge on how to make their projects more energy efficient. The program offers consultations twice a month during drop-in meetings. The county has organized a group of local contractors, architects, engineers, energy consultants, and government officials to share their knowledge with developers. Developers are encouraged to visit IBRP meetings early in the development process and attend as many meetings as they like. In addition to free technical assistance, the program provides three levels of incentives to developers achieving efficiency above the County's mandated standards.

emPowerSBC

The initiative emPowerSBC (Elective Municipal Programs to Optimize Water, Energy, and Renewables) was developed by the County of Santa Barbara to help homeowners create a more comfortable, healthier, and energy-efficient home environment while lowering utility bills. By establishing a loan loss reserve partnership with two local lenders, the Coast Hills Federal Credit Union and the Ventura County Credit Union, emPowerSBC provides low-cost, long-term financing to assist homeowners in making home energy efficiency and solar upgrades. Santa Barbara County is one of only 35 jurisdictions in the nation to be awarded competitive funding by the U.S. Department of Energy's Better Buildings program.

SANTA BARBARA, CA

Innovative Building Review and Financing

HISTORY AND IMPLEMENTATION

Innovative Building Review Program

In 1993, Santa Barbara County adopted its voluntary energy plan and began developing the policies and programs to reach its goals. A year later the County received a federal grant from the Urban Consortium Energy Task Force to establish its Innovative Building Review Program. It created the IBRP initiative because the County Board wanted to offer a simple and inexpensive program. At first, the IBRP did not provide for multiple levels of incentives. The program was revised in 1998 to offer the tiered system, which has since received a very positive response from the community.

In 2007, Santa Barbara County updated its local version of California's Energy Efficiency Standards (Title 24, Part 6). Title 24 applies to all county buildings and establishes specific thresholds for single-family houses, residential additions, high-rise residential homes, non-residential indoor lighting, and non-residential buildings and additions.

	ENERGY EFFICIENCY REQUIREMENTS	INCENTIVES
Target 1	*Residential:* 20% beyond Title 24 and 5 points *Non-residential:* 5% beyond Title 24 and 5 points	• Expedited processing by the Building and Safety Division (average 30-50% time reduction in plan review)
Target 2	*Residential:* 30% beyond Title 24 and 12 points *Non-residential:* 15% beyond Title 24 and 12 points	• Expedited processing by the Building and Safety Division • Energy plan review fee reduced by 50% • Eligible to use the IBRC logo for marketing
Target 3	*Residential:* 40% beyond Title 24 and 30 points *Nonresidential:* 25% beyond Title 24 and 30 points	• Expedited processing by the Building and Safety Division • Energy Plan check fee reduced by 50% • Eligible to use the IBRC logo for marketing • Resolution of Commendation from the County Board of Supervisors

The Innovative Building Review Program established three levels of energy efficiency targets above Title 24. Developers seeking the IBRP designation are also expected to incorporate features that are not addressed in Title 24, including solar heating and lighting, summer shading and wind protection, recycled and energy-efficient building materials, and building siting and orientation. The inclusion of these attributes awards the builder a particular number of "points."

Kathy Pfeifer, a planner in the Energy Division of the County's Planning and Development Department, explains the County wanted the energy efficiency targets to be simple. For instance, it set Target 1 quite low in hopes that residents would realize how easy and inexpensive an energy upgrade can be. Pfeifer hopes the residents will say, "That was so easy, let's go for Target 2 next time."

Since the County Board did not want to offer financial bonuses, the county was somewhat limited in the incentives it could provide. The IBRP's main encouragement for developers to build green is the expedited review, along with some fee reductions and marketing benefits. When the development activity was high, the expedited review reduced the development process by approximately

SANTA BARBARA, CA

Innovative Building Review and Financing

photo by Timothy Hursley

one month. At the present time, fewer permits are coming through the Planning Department, and all applications are processed more quickly.

As green building becomes increasingly common practice and the mandated California Energy Code is made stricter, particularly with the recent adoption of the California Green Building Code, Santa Barbara County plans to adjust its Innovative Building Review Program accordingly. As it is now, Santa Barbara County's IBRP Tier 1 standards are mandated by the State. The County recently received a grant from the Southern California Edison Company, a utility, which will help it redesign the program over the next year or two. The anticipated new program will build off of the tiered system in the California Energy Efficiency Standards. It will require participants to achieve the California Energy Standard's Tier 1, and then the County will offer advanced Tier 2 and Tier 3 options.

emPowerSBC

Santa Barbara County began to establish its energy efficiency green building program in 2009. Initially, the county had a legislated Property Assessed Clean Energy (PACE) financing program, which offered residents and businesses bond funds for energy retrofits. When the Federal Housing Finance Agency challenged PACE, the County changed its financing approach.

While many neighboring communities were using their EECBG funds to issue rebates for energy upgrades or upgrade municipal buildings, Santa Barbara County sought a loan loss reserve program to further leverage the grant funds. In 2011, Santa Barbara County executed a public-private partnership with a local credit union. The County then used 1 million dollars in grant funds to establish a loan loss reserve with the credit union. Homeowners can now get loans with interest rates as low as 5.9%, along with a 15-year repayment period with no pre-payment penalty. The loans are unsecured, which allows for quick pre-approval and no impact to home equity. The County's loan loss reserve can cover up to 90% of the lender's loss in the event of a default, up to 5% of the total loan portfolio. As a result, the County has made at least $20 million in capital available to homeowners.

The program is funded in its entirety with $3.2 million in state and federal grants: $2.4M awarded from the Department of Energy's Better Buildings Initiative and nearly $773K from the Energy Efficiency and Conservation Block Grant (EECBG) funds passed down from the California Energy Commission. One million dollars of the program's budget was placed into the County's loan loss reserve.

The program incorporates a number of features that make projects even easier and more affordable for homeowners. For one, emPowerSBC streamlined its processes to complement a statewide utility incentive program called Energy Upgrade California. The program offers rebates of up to $4,000 for energy upgrades and its participants have access to trained contractors and low-cost loans. Homeowners may also submit an application at any time and pre-qualification applications are presently coming in. Lenders perform under-writing services 24/7, with applications turned around in 15 minutes.

Program participants can complete their affordable home energy upgrade in five steps. First, they will select an upgrade package and a qualified contractor listed on www.emPowerSBC.org. Next, they will work with the contractor to create a scope of work and submit an application for an Energy Upgrade rebate. Once they are enrolled, the homeowners apply for emPowerSBC financing pre-approval through the lending partners. The contractor will then install the eligible improvements and have the project verified by Energy Upgrade CA. Finally, the homeowner will submit required documentation such as a certificate of completion and a utility waiver to the lender in order to close the loan. The utility waiver allows the County to access the individual's utility data. The loan recipients can then use Energy Pro software, which was developed by the U.S. Department of Energy (DOE) and is free to the public, to manage and track their energy savings.

SANTA BARBARA, CA
Innovative Building Review and Financing

The emPowerSBC program was developed and is currently administered by the County's Housing and Community Development Department, with assistance from the County Counsel, the Auditor Controller, and the Treasurer-Tax Collector, as well as technical assistance from the DOE. The program staff also works closely with a large base of community partners to support essential functions such as marketing and workforce development.

Santa Barbara County also has a strong and long-standing relationship with its development community, which has supported emPowerSBC in its success. The Housing and Community Development staff communicated with developers through weekly conference calls and garnered support from contractors throughout the program's development. When Santa Barbara County kicked off the emPowerSBC program in November 2011, the launch event was attended by community leaders, contractors, realtors, and residents. Contractors are also involved in providing program support services, such as staffing the help desk and developing an informational toolkit. Eight contractors are currently featured in the "Participating Contractors Directory" on the program's web page. These contractors benefit from the County's efforts to raise the program's profile, while residents benefit from being able to directly contact a contractor that is fully aware of the program's specific requirements.

BENEFITS

Innovative Building Review Program

On average, 5-7% of the County's total permit stream comes through IBRP. Throughout the first eight years of the program (1994-2002), over 1,000 units achieved an IBRP Energy Efficiency Target. Over the last 10 years, approximately 1,200 residential units and additions have come through the County program. In 2002 in particular, there was a spike in energy costs, which correlated with very strong interest from residents. County staff has noted that green building is becoming more accepted and commonplace; in the last two to three years, over 30 awardees were participating in IBRP at the Target 3 level. Additionally, the County's green building program has inspired the developers of 15 commercial buildings and four other county governments to implement energy efficiency measures.

emPowerSBC

The County's Board of Supervisors unanimously supported emPowerSBC in August 2011. The elected officials approved of the program's voluntary nature, its potential for job creation in the struggling contractor trades, the partnership with local private lenders, and the program's ability to effectively leverage resources for larger impact. The loan loss reserve can continue to support new loan portfolios beyond the initial $20M for as long as it lasts, which depends on the number of defaults. The program's current goal is to retrofit 1,300 homes. These projects should stimulate construction industry jobs and increase property values, which will make a positive impact on the County's tax base.

CHALLENGES

Fortunately, linking the Innovative Building Review Program with emPowerSBC has helped to reduce the administrative burden of processing applications. Santa Barbara County does face one ever-present challenge. Its energy rates are higher than those in other counties, but it also has a temperate climate and consequently uses comparatively less energy for similarly sized developments. On balance, the expected energy savings from energy efficiency programs are moderate. Without overselling expected savings, it can be challenging for County staff to advertise the IBRP and the emPowerSBC program to residents. However, even with these challenges, the County expects to see continuing success on green building accruing as a result of this program.

ADDITIONAL RESOURCES

http://www.sbcountyplanning.org/projects/ibrp
http://empowersbc.org

ARLINGTON COUNTY, VA

Density Bonus

ARLINGTON COUNTY, VA

Density Bonus

GREEN BUILDING INCENTIVE

Scope
Commercial and Residential

Type of Incentive
Density Bonus

KEY COUNTY FACTS

Land Area
25.97 square miles

Population
207,627

Population Density
7,993.6 people per square mile

Median Household Income
$94,986

Education
33.0% bachelor's
36.9% graduate or professional

Means of Commuting to Work
58.6% private vehicle
28.5% public transport
7.4% other means

Building Permits
875

The Arlington County green building density bonus program awards private development projects that achieve LEED certification with additional floor space beyond the amount allowed by the zoning code. This extra capacity is awarded in the form of a floor area ratio (FAR) bonus (the ratio of a building's total floor area to the area of the land it occupies).

The program uses a tiered benefit system in which the projects that strive for the highest LEED certifications are rewarded with the most generous FAR bonuses. In order to obtain bonus density, a developer must include a LEED Accredited Professional on the site plan team. When submitting the site plan for the County's review, the developer must include a LEED scorecard that documents the credits the project will include. The proposed site plan then undergoes the standard community review process. Once approved, the County and the developer-hired LEED professionals review the permit drawings for the development to ensure compliance with the components outlined in the scorecard. When the building earns its LEED certification, the County issues it a Master Certificate of Occupancy. In order to ensure compliance with proposed green building standards, Arlington County requires the developer to post a bond or letter of credit equal to the amount of the approved bonus density multiplied by the average rental rate for space in the particular section of the county. If a development does not achieve the promised level of LEED certification, the bond or credit defaults to the County.

HISTORY AND IMPLEMENTATION

Arlington County's green building density bonus program arose from the County's commitment to smart growth development policies dating back to the early 1960s. In 1999, this commitment to high-density, D.C.-oriented development led to the inception of the Pilot Green Building Incentive Program, an effort to minimize the environmental impact of development along Arlington's Metrorail corridors. This program rewarded commercial office space developments that obtained LEED Silver certification with a bonus density of up to 0.25 FAR. However, the County realized that some developers were interested in incorporating green building strategies, but were not prepared to achieve LEED Silver. To make the program more flexible, in 2003 the County included all levels of LEED certification (Certified, Silver, Gold, and Platinum). It also expanded the bonus density incentive to every type of site plan, with FAR bonuses ascending in correspondence with the stringency of the LEED certification level.

In 2003, the County also established its Green Building Fund. The program asked developers that did not achieve a LEED rating to contribute $0.03 per square foot (roughly equivalent to the cost of LEED certification for most projects). The fund, which has since increased to $0.45/square foot, pays for the training of staff on LEED requirements and promoting the County's green building and environmental programs.

PHOTOS: page 28 – Washington-Lee High School, Arlington; architect: Grimm + Parker Architects

page 31 – Langston-Brown Community Center, Arlington; architect: BeeryRio Architecture + Interiors; photos by Sisson Studios

ARLINGTON COUNTY, VA
Density Bonus

General Land Use Plan Goals

1. Concentrate high-density residential, commercial, and office development within designated Metro Station Areas in the Rosslyn-Ballston and Jefferson Davis Metrorail Transit Corridors. This policy encourages the use of public transit and reduces the use of motor vehicles.

2. Promote mixed-use development in Metro Station Areas to provide a balance of residential, shopping, and employment opportunities. This policy intends to achieve continuous use and activity in these areas.

3. Encourage the construction of a variety of housing types at a range of prices, heights, and densities in and near Metro Station Areas. The Plan allows a significant number of townhouses, mid-rise, and high-rise dwelling units within designated Metro Station Areas.

4. Preserve and enhance existing single-family and apartment neighborhoods. Within Metro Station Areas, land use densities are concentrated near the metro stations, tapering down to surrounding residential areas in order to limit the impacts of high-density development. Throughout the county, the Neighborhood Conservation Program and other community improvement programs help preserve and enhance older residential areas, as well as provide housing at a range of price levels and densities.

5. Preserve and enhance neighborhood retail areas. The County encourages the preservation and revitalization of neighborhood retail areas that serve everyday shopping and service needs consistent with adopted county plans. The Commercial Revitalization Program concentrates public capital improvements and county services in these areas in order to stimulate private reinvestment.

Six years later, Arlington County's analysis revealed that office space developers had begun to incorporate green building techniques as a common practice. From 2003 through 2008, 55% of the approved office space site plans were awarded the LEED density bonus. Even more encouraging was the fact that some of the buildings that had not sought the incentive still incorporated green building components in their design. However, the rate of transformation was less rapid in the residential construction market. Only about 24% of the residential units approved during this period were given the LEED density bonus.

As the market continued to evolve, the Arlington County Environmental Services Department recommended changes to the bonus structure in order to green the residential market and incentivize commercial projects to achieve higher levels of LEED certification. An incentive is only effective if it leads the market toward community goals instead of rewarding the typical business practice. The new 2009 policy consequently reduced the FAR allotted to the commercial buildings that aimed for LEED Certified or Silver, retained the award for LEED Gold, and increased the bonus for LEED Platinum. As an additional encouragement to the residential market, the amended policy gave residential developments at every level of LEED certification an additional .05 FAR above the commercial rate.

Arlington County staff stresses the importance of reaching out to the development community. Building strong relationships with developers allowed the County to spread the awareness of its mutually-beneficial density bonus; it also enabled the program's effective execution since staff could quickly notify developers of any changes and updates. Continuing to foster this close relationship with developers will be key to ensuring the success of any future adjustments to the County's green building policies.

BENEFITS

Arlington County's density bonus program has enjoyed remarkable success. Since 2001, the County has approved 26 buildings totaling 5,281,408 square feet of multi-family residential and commercial office space, with many of the projects winning approval in 2008. Over a quarter of these buildings have achieved LEED certification. Unfortunately, the recession put many projects on hold and forced some developers to revise their site plans. However, according to Jessica Abralind, a green building planner in the Arlington Department of Environmental Services, about half of these projects have recovered and are back on track. Since 2008, two additional buildings have won site plan approval for the County's LEED density bonus. This relatively low number can be partly explained by continuing weakness in the building sector and does not appear to indicate a decreased interest in green building. County planners actually note that the Arlington construction market is adopting green building techniques without incentives. Since 2001, the County has approved nine projects that applied for LEED certification without receiving the density bonus.

Results – Since 2001	
Multifamily residential and commercial office square footage approved with LEED bonus density	5,281,408
Square feet of office space approved with LEED bonus density	2,667,463
Residential units approved with LEED bonus density	2,072
Total Site Plan project buildings	84
Site Plan buildings that require LEED certification	42%
Buildings that require LEED certification	35
Buildings approved with LEED bonus density	26

ARLINGTON COUNTY, VA
Density Bonus

The Program Step by Step

1. A LEED-accredited professional is included in the site plan project team.

2. At the time of site plan submission, the developer is required to submit the (1) LEED scorecard and (2) explanation of how and/or why each credit can or cannot be achieved.

3. Building information is filed with the USGBC for LEED certification and rating.

4. The proposed site plan (including the requested bonus density and/or height) undergoes the typical community review process. If the County Manager supports the project, plans will include the appropriate site plan condition language requiring the green building components identified in the scorecard.

5. Permit drawings are reviewed to ensure inclusion of the approved green building components.

6. The application for LEED certification and rating is submitted to the USGBC for design credit review and construction credit review during the design and/or construction phase.

7. During plan review and construction, the LEED-accredited professional provides documentation and submits regular reports to the County in order to ensure compliance with LEED standards.

8. If, during construction of the building, the developer is unable to include all of the approved green building components previously identified in the scorecard, the developer is required to replace them with other building components acceptable to USGBC and the LEED rating system.

9. The Master Certificate of Occupancy is issued when the building is LEED certified by the USGBC and construction is consistent with the approved site plan.

In addition to acting as an effective enticement to developers, the bonus density incentive has a very low impact on the County's budget. The incentive itself requires no financial outlays, and the cost of staff training, promotion, and administration is covered by the Green Building Fund.

CHALLENGES

One challenge that has been reported is ensuring that project designs target energy consumption reductions. The reduction in energy use is a priority for the County and, on some projects, it will require the inclusion of certain energy credits. Since LEED energy credits are generally more expensive than other options, some developers may react negatively to these requirements.

LESSONS LEARNED

When analyzing the success of Arlington County's density bonus program, it is important to take into account the special factors that make a density bonus such an appealing incentive to developers. Arlington is a small county, covering only 25.8 square miles, yet its population numbers over 207,000. With such a high population density, space comes at a premium. Unlike suburban counties with ample undeveloped land, Arlington developers are constantly looking for ways to do more with less. The permission to exceed height or setback restrictions in the zoning code is extremely valuable in this environment.

As mentioned previously, Arlington has displayed a 50-year commitment to smart-growth urban planning. The county has 11 Metro stops along two rail lines connecting it to Washington, D.C. and the rest of the metropolitan area. The General Land Use Plan encourages continuous activity along the Metro corridors by concentrating high-density commercial, office, and residential development in the area immediately surrounding the Metro stations. Density decreases the further one goes from the Metro corridors toward older, single-family residential neighborhoods. This careful land use planning, which restricts the space available to large-scale developments in an already small area, adds further value to the bonus density incentive.

CHICAGO, IL

Expedited Permitting

CHICAGO, IL

Tiered Permitting Incentives

GREEN BUILDING INCENTIVE

Scope
Commercial, Industrial, and Residential

Type of Incentive
Tiered Permitting Incentives

KEY COUNTY FACTS

Land Area
227.63 square miles

Population
2,695,598

Population Density
11,841.8 people per square mile

Median Household Income
$44,776

Education
20.2% bachelor's
13.2% graduate or professional

Means of Commuting to Work
59.6% private vehicle
26.5% public transport
7.5% other means

The Chicago Green Permit Program is an expedited permitting process that allows developers to save time and money by building sustainable projects that address Chicago's specific environmental concerns. The program is set up as a two-tiered incentive system. The regular building permit process can take 60 to 90 days to complete. Projects that qualify for the Tier I benefit receive a 30 business day permit review process. In exchange for building to a higher environmental standard, Tier II projects receive the expedited permit review in addition to a permit fee waiver of up to $25,000. To earn the incentive, commercial and industrial projects are required to achieve varying levels of LEED certification. Residential projects must meet varying degrees of certification in the local Chicago Green Homes program. All projects are responsible for including a minimum number of green building techniques designed to address Chicago's specific environmental challenges.

HISTORY AND IMPLEMENTATION

Chicago has earned its reputation as a leader in urban sustainability as a result of strong support from the public and the leadership of its former Mayor Richard M. Daley. This support translated into policies that helped Chicago develop one of the most mature green building markets in the country. Like many cities that wish to encourage green building, Chicago requires its public facilities to build green roofs and achieve a LEED certification. As a result of these mandates, the city's design and construction industry effectively gained experience in the strategies and processes of building public buildings that it later transferred to private sector development.

A developer interested in taking advantage of Chicago's expedited review process must first attend preliminary meetings with the Department of Buildings' green project administrator and consultant reviewer to discuss construction plans and develop a project timeline. Following the preliminary meetings is a 4-6 week review to determine the project's eligibility for expedited permitting. If a project is deemed eligible, it then enters the accelerated 30-day review process.

PHOTOS: Chicago Center for Green Technology, AIA/COTE 2003 Top Ten Green Projects award recipient, Chicago; architect: Farr Associates Architecture and Urban Design; photos by Chris Kelly

CHICAGO, IL

Tiered Permitting Incentives

The regular building permit process can take 60-90 days to complete. The 30-day process offers developers significant savings in project costs since they pay contractors for a shorter time, owe less interest on loans, and can lease or sell their buildings faster. The reduced permitting time and waived fees address one of the primary challenges still facing the green building market—paying higher upfront costs in order to realize operational and maintenance savings that occur over the entire lifecycle of the building. "A 10-year payback is too long for some clients because they'll fill the building by then and won't see the savings. If you can reduce the cost and the market has a demand for green buildings, then developers will build green," says Susan Heinking, AIA, an architect with HOK's Chicago office who has worked with the Green Permit Program. The opportunity to complete a project one to two months faster cuts costs and can make a project more attractive to investors.

All buildings pursuing LEED ratings and applying for the Green Permit Program are required to earn at least four points from LEED's Optimize Energy Performance credit. This requirement ensures that the City can address one of its top priorities—reducing energy use and greenhouse gas emissions—with every building that benefits from its incentive. The City uses the same approach to address its other sustainability priorities by requiring each project that uses the incentive to include 2 or 3 items from a "menu" of sustainable building strategies. This innovative approach makes third-party certification systems more responsive to local environmental concerns.

The Green Permit Program uses several enforcement mechanisms to ensure that developers

CHICAGO, IL

Tiered Permitting Incentives

comply with its requirements. First, the developer must sign a contract enumerating the agreed-upon green building strategies and, if applicable, the amount of the permit fee to be waived. Once a permit has been issued, the inspectors perform field audits and can issue stop-work orders for non-compliance. If a project owner does not seek LEED or Chicago Green Homes certification, the Department of Buildings will reclaim the fee waiver and bar the developer from future projects.

BENEFITS

The Chicago Department of Buildings staff reports that the program has been immensely popular since its implementation. At the beginning of the program, the department was issuing about 100 expedited green permits per year. It now processes more than 200 annually and expects this number to approach 300 in 2011. As of February 2011, Chicago had 223 LEED certified buildings, with 516 LEED registered projects on the way. The popularity of the program has at times strained it to the point that some projects did not receive their permits within the promised 30 business day cycle.

Green Permit Program Sustainability Strategies	Minimum Requirement "Menu" Options
Exceptional Energy Performance	Obtain four points in LEED's Optimize Energy Performance credit or 200 points in Chicago Green Homes Energy Efficiency category
Green Roof	Provide a green roof for 50% of the roof area
Renewable Energy	Generate a minimum of 1% of energy on-site, by a renewable source
Extra Affordability	Provide 100% affordable housing or locate the building in a Transit-Oriented and Difficult to Develop Area
Natural Ventilation	Design a natural or hybrid ventilation system for 50% of the occupied area
Special Water Management	Earn the LEED Efficient Fixtures credit and reduce stormwater runoff
Improved Bike Parking	Build indoor bike parking for commercial and residential projects
Higher-Level LEED Certification	Reach a LEED certification that is one level higher than required by the benefit tier
Better Chicago Green Homes Rating	Achieve a 3-star rating when only a 2-star rating is required
Innovative Design	Submit other sustainable design strategies for the Department of Buildings to consider

SAN DIEGO COUNTY, CA

Fee Discounts and Expedited Review

SAN DIEGO COUNTY, CA

Fee Discounts and Expedited Review

GREEN BUILDING INCENTIVE

Scope
Commercial, Industrial, and Residential

Type of Incentive
Fee Waiver, Fee Discounts, Expedited Review

Dedicated Department
Building and Planning Department

KEY COUNTY STATISTICS

Land Area
4,206.63 square miles

Population
3,095,313

Population Density
735.8 people per square mile

Median Household Income
$59,923

Education
21.0% bachelor's
12.7% graduate or professional

Means of Commuting to Work
86.3% private vehicle
3.3% public transport
4.6% other means

Building Permits
3,494

San Diego County provides fee discounts and expedites the review time for plan checks and permits for projects that meet the County's green building criteria. The County also waives the planning and building fees for permits that are covered by the Home Owner Relief Act (HRA). This includes residential-scale solar photovoltaic panels, wind turbines, and solar water heaters.

HISTORY AND IMPLEMENTATION

San Diego County seeks to encourage homeowners and builders to use sound environmental practices. In 1997, the County wanted to offer incentives that were accessible to a variety of builders and homeowners, not just the large developers. The San Diego County's Board of Supervisors thus adopted a new set of guidelines for Voluntary Resource-Efficiency (Policy F-50) and established the County's "Build It Green Program."

Key elements of the San Diego Green Building Program are natural resource conservation, effective water management, and energy efficiency. To qualify for the incentives, a project must comply with one of several conservation measures: inclusion of recycled-content materials or straw bale construction, gray water systems, or energy use below the California Energy Commission's (CUE) standards. Expedited review saves developers seven to ten days on project timelines. Developers can also expect a 7.5% reduction in plan check and building permit fees. By prioritizing their projects, the County saves customers building green single-family housing several weeks of processing time, as well as several hundred dollars in fees. Homeowners and developers can expect no fees for the building permit and plan check of residential solar photovoltaic systems.

PHOTOS: Francis Parker School, San Diego; architect: Lake | Flato Architects

SAN DIEGO COUNTY, CA

Fee Discounts and Expedited Review

COSTS AND BENEFITS

San Diego County has fostered a solid working relationship with the development community by encouraging its staff to process permits quickly and over the counter. Initially, temporary positions were created to assist the Building and Planning Department with an increase in customers. The accelerated turn-around time has been a big incentive for many developers to build green, especially when it comes to residential housing projects.

The County has seven LEED-certified buildings of various certification levels. Eleven projects are in the construction phase, with completion anticipated before the end of 2012. Three LEED-targeted project proposals are currently under review. The County's diverse LEED-certified building portfolio will eventually include libraries, a conservancy, a waterfront park, and a women's detention facility. During the 2010-2011 fiscal year, the County waived over $322,000 in building permit fees as incentives for renewable energy projects. During the same fiscal year, San Diego County also waived permit fees for 952 solar photovoltaic panel installations and 29 solar water heater systems. All of these projects also benefited from expedited processing. Solar contractors, developers, and the general public have welcomed the fee waiver/reduction program and the relative ease of obtaining a permit. As a result, San Diego County was designated one of the "Top 5 Solar Friendly Municipalities" by the Sierra Club's 2009 report on solar electric permit fees in Southern California. Within the first three-quarters of 2011 alone, the County's LEED-certified buildings saved an estimated 4,865 tons of CO_2 emissions.

ADDITIONAL RESOURCES

www.sdcounty.ca.gov/dplus/docs/DPLU273.pdf

ALAMEDA COUNTY, CA

Critical Design Assistance

ALAMEDA COUNTY, CA

Critical Design Assistance

GREEN BUILDING INCENTIVE

Scope
Multi-Family, Public Buildings, Public-Private Partnerships, Non-Profits Building Affordable Housing

Type of Incentive
Grants (Discontinued), Design Assistance (Discontinued), Residential Energy Efficiency Rebates

Dedicated Department
Waste Authority (public-private entity)

KEY COUNTY STATISTICS

Land Area
739.02 square miles

Population
1,510,271

Population Density
2,043.6 people per square mile

Median Household Income
$67,169

Education
24.1% bachelor's
16.2% graduate or professional

Means of Commuting to Work
77.7% private vehicle
10.8% public transport
5.5% other means

Building Permits
1,727

StopWaste.org was formed by the Alameda County Source Reduction and Recycling Board, along with the Alameda County Waste Management Authority. It operates as a joint-power public agency and receives its funding from the disposal surcharges at local landfills. It provides technical assistance related to maximizing waste prevention, recycling, and economic development opportunities to the public, businesses, and local governments.

As a result of working through a unique governing agency, Alameda County is able to provide a more comprehensive green building program than could be created by a single city or county. The County's green building incentives are available to developers pursuing certification with the USGBC's LEED rating program for commercial and civic buildings, as well as the County's own guidelines for green residential construction.

HISTORY AND IMPLEMENTATION

Construction waste constitutes over 20% of material disposed in Alameda County landfills. StopWaste offered its green building incentives in 2001 as a way to reduce construction waste within the county. As such, all grants from the agency involve a waste reduction requirement.

PHOTOS: Camp Arroyo, AIA/ COTE 2002 Top Ten award recipient, Livermore; architect: Siegel & Strain Architects; photos by Siegal and Strain

ALAMEDA COUNTY, CA
Critical Design Assistance

Standards and Guidelines

With the assistance from local building professionals and officials, StopWaste has developed comprehensive green building guidelines and savings calculators for new residential construction (2000), home remodeling (2001), and multi-family housing (2004). Besides supporting the area's developers, StopWaste has created model documents for local municipalities to adopt green building standards. Among these documents are:

- Model ordinance for construction and demolition waste management and recycling;
- Model contract specification and waste management plan;
- Model green building ordinance for civic buildings;
- Model general plan language to encourage green buildings; and
- Model green building resolution.

Many municipalities within the county have adopted a policy that requires LEED certification, which has made the County's incentive superfluous. Currently, active grants are offered to public sector employees and non-profits that promote affordable housing.

Grants

When LEED was first introduced, Alameda County provided a $100,000 grant for LEED certification at any level. The County's generous grant was intended to help offset the additional design time and training costs associated with project certification. As LEED continued to grow in popularity, the grant amount was lowered to $50,000, and then to $30,000. Since the LEED certification system has become more commonplace, any additional costs are now internalized by developers. As of 2011, most of the grants have been phased out, partly as a result of the program's success.

Design Assistance

Green developers can receive free design support that includes:

- Assistance with the preparation and review of the RFQs and RFPs;
- Facilitation and review services at various levels of project completion, including project review, design charrettes, schematic design, design development, construction documents, build-out, and commissioning;
- Selection and specification of appropriate building materials; and
- Integrating Bay-Friendly Landscaping practices into the project design.

Although the County no longer offers grants to civic facilities, design assistance is still available for new and renovated LEED-rated buildings. Such projects must be publicly owned, publicly funded, or qualify as a public-benefit project, such as affordable housing, developed by a non-profit organization.

Training

The County provides space for the USGBC to host training sessions open to anyone interested. The agency also offers scholarships for City and County staff to attend these workshops. While the economic downturn has reduced attendance at these trainings, the authority continues to provide assistance to interested staff.

StopWaste also offers a full range of introductory presentations about LEED and the County's residential green building guidelines for city councils, commissions, and community groups. More in-depth training sessions are available for project managers, planners, building inspectors, architects, and contractors.

ALAMEDA COUNTY, CA
Critical Design Assistance

StopWaste also works through a network of partnerships, including the San Francisco chapter of the National Association of the Remodeling Industry, the Northern California chapter of the USGBC, the Bay Area Build It Green non-profit organization, the State of California, and more. By leveraging these partnerships, the agency has developed a Certified Green Building Professionals class, co-sponsored LEED workshops, and organized green home tours.

Residential Energy Efficiency Grants

StopWaste promotes the County's participation in the state-wide Energy Upgrade California project, which encourages residential retrofits and renovations through grants to homeowners (up to a maximum of $25,000) and rebates provided by Pacific Gas and Electric. Since the program's launch in 2009, the County has implemented a robust marketing plan in partnership with the nine surrounding counties, as well as set up contracts with program participants. In the future, the agency hopes to move beyond green building and provide assistance with building management policies and purchasing decisions. The County has also adopted the California Green Building Code, or CalGreen, which may result in opportunities to help municipalities adopt and implement its guidelines.

COSTS AND BENEFITS

StopWaste's member agencies have been very supportive of the green building program because they lack the staff, resources, and expertise to provide such services on their own. In order to use the resources most efficiently, the external grant dollars received by each member agency are pooled by StopWaste. In return, StopWaste advocates for the adoption of uniform green building standards throughout the County's jurisdictions. StopWaste realized that it is inefficient to have a patchwork of standards where developers must learn a number of different systems. The agency is beginning to see some traction in establishing uniform standards for the region, even beyond Alameda County into other parts of the Bay Area.

Over the last 10 years, the management of the program has required one full-time staff person and payments to outside design consultants, the latter of which is no longer necessary. Meanwhile, the agency has provided $3 million in grants and technical assistance to developers within the county. In the past year, the County has provided grants to aid the development of over 50 new LEED-certified buildings. During its lifespan, the County's green building program has provided design assistance to over 70 public and public-benefit projects. Among the projects that have received design assistance and grants are city halls, libraries, fire stations, public office buildings, educational facilities, affordable housing developments, senior centers, community centers, justice centers, and courthouses.

"We also helped to educate the development community and bring down the learning curve in the early years of LEED certification," says Wes Sullens, the program manager. "That impact is almost impossible to measure."

ADDITIONAL RESOURCES

www.buildgreennow.org

SARASOTA COUNTY, FL

Broad Green Building Promotion

SARASOTA COUNTY, FL

Broad Green Building Promotion

GREEN BUILDING INCENTIVE

Scope
New Residential Construction, Residential Retrofitting/ Remodeling, New Commercial Construction

Type of Incentive
Refund (Discontinued), Expedited Permitting, Priority Inspections, Marketing and Technical Assistance, Award Program

Dedicated Department
Building, Sustainability

KEY COUNTY STATISTICS

Land Area
555.87 square miles

Population
379,448

Population Density
682.6 people per square mile

Median Household Income
$45,641

Education
16.5% bachelor's
11.7% graduate or professional

Means of Commuting to Work
87.9% private vehicle
1.4% public transport
5.1% other means

Building Permits
708

In 2005, Sarasota County's Board of Commissioners adopted a resolution that required County-owned buildings to meet green building standards. It also created a voluntary Green Building program for private development projects. The program applies to all recipients of both the USGBC's LEED rating program certifications and the Florida Green Building Coalition (FGBC) standard.

HISTORY AND IMPLEMENTATION

The County has built a strong working relationship with the local development community, which it cultivates during monthly meetings of the Sustainable Sarasota Community Partnership. Many developers regularly participate in County events and share information about their current work with the community. County staff reciprocates by serving on the local chapter of the USGBC and hosting a Green Realtor group. In 2005, Sarasota County adopted its Green Building ordinance to support developers in erecting resource-conserving buildings, as well as to give credit to those who already see the value of building green.

Refund

Green building projects in Sarasota County are eligible to receive a 50% reduction in building permit fees, up to a maximum of $1,000 and subject to the availability of funds. At most, the county is allowed to spend $50,000 per year on building permit fee refunds. An individual developer can receive no more than $5,000 in permit fee refunds per year.

In 2007, the County discontinued the refund incentive. The county no longer had the financial means to offer the incentive in the economic downturn. Additionally, the County's building official, Greg Yantorno, realized that $1,000 was not going to be the deciding factor in whether or not someone built green. "The decision to build green lies with a property owner's foresight to use the green building standards for savings and a reduced carbon footprint," explains Yantorno.

PHOTOS: Cancer Support Community – Florida Suncoast – Building Hope, Sarasota; architect: Michael Carlson, Carlson Studio Architecture; photos by Dick Dickinson

SARASOTA COUNTY, FL
Broad Green Building Promotion

Conference Room at the Cancer Support Community, Sarasota

Expedited Permitting and Priority Inspection

Without the refunds, Sarasota County's expedited review and priority inspection are the main incentives offered through the Green Building program. Developers simply follow the regular process while submitting their building applications to the Building Department.

Green building developers are eligible for fast-track review of their building permits. If a re-zone or special exception is included in the application, such petitions are processed within six months from the date the petition is submitted. Site and development plans are processed within 10 working days. Permit applications for green residential buildings are processed within three working days. The applications for green commercial buildings are processed within five working days. All applications must be accompanied by the appropriate checklist from the USGBC's LEED rating program or the Florida Green Building Coalition Designation Standard.

Marketing and Technical Assistance

For developers seeking green building certification in eligible sectors, the County provides the following marketing incentives:

- Signage at the building site designating the project as green;
- Acknowledgement of program participation on a County webpage dedicated to green building;
- Creation of a program logo for inclusion in the developer's advertisements and brochures;
- Press releases issued by the County; and
- Information about available financial programs.

The County's Inspections and Permitting Services division also conducts an annual workshop for developers to learn about the Green Building program.

Green Building Award and Green Homes Tour

The County issues an annual "Green Building Award" to several successful developers. The County staff also works with the Sarasota-area USGBC chapter to host an annual Green Homes Tour, for which the County helps to select the homes to feature and assists with program logistics.

SARASOTA COUNTY, FL
Broad Green Building Promotion

Other Incentive Programs

The County promotes green development by expediting the process review for developers that achieve the LEED for Neighborhood Development (LEED-ND) certification, or meet the Florida Green Building Coalition's standards. Instead of focusing exclusively on the building's characteristics, these programs also consider the project's impact on the building site and larger development region. Importantly, Sarasota County also has a Water Efficient Landscape Ordinance, which directs residential developers to implement landscapes with no more than 50% high-water-use foliage. This ordinance was created in 2001 to reduce the County's consumption of water through efficient landscaping. Residences can be certified through Florida's Water Star Gold for reducing irrigated land and sod-covered lawns.

COSTS, BENEFITS, AND CHALLENGES

Since 2007, Sarasota County has issued nine $1,000 refund checks for green building projects. One was granted to an owner/builder, the rest to two of the area's contractors. With the elimination of the building permit refunds, the County's Green Building program no longer has a dedicated budget. Little additional staff time is needed for the priority plan review and inspections, which saves about a week in a project's timeline. Unfortunately, this incentive has proved to be less powerful in a down economy. As a result of less development activity, all permits are currently processed by the Building Department within five days. However, the County's Sustainability Outreach Coordinator Nancy Powers explains that these incentives continue to provide important intangible benefits. "Many developers are getting these accolades as a way to be recognized for building carefully," says Powers. "These green building and water incentives are an important way to thank green builders and homeowners."

Since building green has become more routine, Sarasota County may replace its green building incentives with a set of sustainable building and construction codes. At present, the County offers an optional set of codes for developers. As the economy recovers, it may consider full adoption of the International Green Construction Code (IgCC).

ADDITIONAL RESOURCES

building.scgov.net/OSG/Sarasota/Green%20Building/GreenBuilding.htm

PHOTOS: Twin Lakes Park Office Complex, Sarasota; architect: Michael Carlson, Carlson Studio Architecture; photos by Dick Dickinson

GREEN BUILDING INCENTIVE TRENDS

IN A HANDFUL OF PROGRESSIVE COMMUNITIES ACROSS THE COUNTRY, THE INCENTIVES THAT HAVE BEEN IN PLACE FOR SEVERAL YEARS HAVE FULFILLED THEIR ROLE. IN THESE COMMUNITIES, GREEN BUILDING HAS BECOME STANDARD PRACTICE.

Since the 2008 publication of the Local Leaders in Sustainability: *Green Incentives* white paper, significant changes have taken place with respect to the ways that local governments leverage incentives to promote green building. These changes have been caused by a number of factors, including the recession and the increased sophistication of the design and building sectors in regard to sustainable design. This section explains some of the forces behind this evolution.

FUNDING IS LIMITED

Several of the local governments interviewed for this report reduced the amount or availability of their financial incentives as a result of budgetary constraints. For instance, Sarasota County in Florida chose to discontinue its building permit fee rebate. Because of financial challenges, some local governments have also witnessed decreased community support for green building incentives.

From the industry perspective, money is also tight. Financing is harder to come by, making developers less likely to take advantage of the incentives that are still available. Because the banks are adopting stricter underwriting standards, the development community is also less likely to experiment with green practices—unless under pressure from regulatory obligations or local market forces.

GREEN BUILDING IS BECOMING "NORMAL"

In a handful of progressive communities across the country, the incentives that have been in place for several years have fulfilled their role. In these communities, green building has become standard practice. Several of the local governments interviewed for this report are leaders in green building incentives, as they were already in 2008. Many developers in these cities are trained to build according to the standards included in the LEED rating program or other sustainability standards. They are also willing to internalize any additional associated costs because they recognize green building as a solid investment that increases the value of their projects, either in tenant lease rates, re-sale, or building performance. In 2010, Alameda County in California removed a financial incentive that was designed to help offset the additional design and training costs associated with LEED certification. Wes Sullens, the County's project manager for the program, notes that additional costs are now internalized by developers who recognize that building green is crucial to staying competitive in the county's building market.

SOME INCENTIVES ARE NOW INEFFECTIVE

Since 2008, some communities have realized that certain incentives no longer achieve their intended goals. Greg Yantorno, a building official for Sarasota County in Florida, says that the County has discontinued its $1,000 refund incentive for building permits. A variety of new incentives now need to be developed in order to achieve the same or different outcomes. The government-process incentives, such as expedited permit review and priority inspections, are also becoming less significant. With fewer projects being built, fewer permit applications are being filed, all of which has enabled all building permit applications to be processed more quickly.

PROGRESSIVE LOCAL GOVERNMENTS ARE SHIFTING THEIR STANCE TO PROMOTE GREEN DEVELOPMENT MORE HOLISTICALLY.

Some states have also enacted standards that are stricter than what local governments were attempting to accomplish. For instance, Santa Barbara County in California increased the requirements for its Innovative Building Review Program when the California Energy Code adopted a standard as high as its own. Some states have enacted regulations that are more rigorous than local incentives, which have allowed local governments to withdraw their incentives.

TAKING A HOLISTIC APPROACH

Progressive local governments are shifting their stance to promote green development more holistically. They are phasing out standard green building incentives in favor of programs that promote sustainable building operations and maintenance, incorporating LEED for Neighborhood Development incentives, encouraging the installation of building monitoring systems, and promoting smart grid technologies that make building occupants more aware of how they interact with their environment. As the market evolves, communities are also likely to see additional guidance on sustainable retrofits.

FOCUSING ON ENERGY EFFICIENCY AND RENEWABLE ENERGY INCENTIVES

In 2010, Federal American Recovery and Reinvestment Act (ARRA) funds were allocated toward local energy efficiency and renewable energy programs. At the same time, the financial case for energy efficiency retrofits and renewable energy projects was becoming more solid. These developments have resulted in the implementation of many more energy efficiency and renewable energy financing programs than green building programs across the country.

In addition, many states have adopted renewable energy portfolio requirements for utilities, which require utility companies to achieve a specified percentage of their energy generation through renewable generation technologies by a set deadline. The utility companies have addressed these regulations through a combination of new large-scale generation facilities for solar photovoltaics and wind turbines, but also through incentives to encourage rooftop solar photovoltaic installations on residences.

This is not to say that green building will not continue to take its proper place in U.S. communities. However, local governments are also using the energy efficiency and renewable energy incentives to accomplish their sustainability and public health goals. It is also important to note here that the ARRA funds are temporary, since they are scheduled to run out by the end of 2012.

REGULATING GREEN BUILDING

As the market for green building continues to evolve, stronger regulatory policies will continue to take hold. Rather than providing incentives, several of the local governments interviewed for this report indicated that they are reviewing the possibility of adopting green building codes, or minimum green building features and efficiencies. These regulations will make sustainable building construction mandatory and eliminate the need for separate green permits or incentives.

In early 2011, California adopted the California Green Building Standards Code, or CalGreen, which enacts in code most of the requirements that would otherwise result in a LEED rating of Silver for new construction. The adoption of CalGreen is being phased into the State's procedures, since it will mark a significant departure from conventional construction practices and include mandatory requirements for energy efficiency approaches like building commissioning.

EXISTING BUILDING CODES AND THE PUSH TOWARD GREEN BUILDING CODES ARE CREATING AN EXCITING AND EVOLVING DYNAMIC FOR SUSTAINABLE BUILDING PRACTICES.

Several communities are also currently piloting the International Green Construction Code (IgCC), developed by the International Code Council (ICC), the American Institute of Architects, and other partners. This first-of-its-kind green construction code coordinates and integrates with the existing health and safety codes of local governments. When interviewed for this publication, the government staff of Sarasota County, Florida, indicated that they are considering adopting the code after the economy recovers. Jefferson County, Colorado, is currently piloting the IgCC. The County's Building Department staff have recognized how the new code, which expands on existing code principles, could be adapted to suit the County's processes.

Alternatively, the National Association of Home Builders (NAHB) is encouraging communities to adopt "smart" codes and "smart" processes, which allow for innovation and flexibility in site planning and design. The NAHB believes that developers will be encouraged to build green if local governments simplify their zoning regulations.[1]

Existing building codes and the push toward green building codes are creating an exciting and evolving dynamic for sustainable building practices. As green building becomes mandatory throughout the country it becomes a question of when, not if, green building will be standard practice for all construction.

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[1] NAHB. "Smart Codes, Smart Process Checklist." 2002. www.nahb.org/fileUpload_details.aspx?contentID=159853

EVALUATING INCENTIVE EFFECTIVENESS

LOCAL GOVERNMENTS CAN AND SHOULD TRACK TANGIBLE BENEFITS SUCH AS ENERGY AND WATER CONSERVATION, THE IMPACT ON THEIR TAX BASE, AND QUALITY OF LIFE IMPROVEMENTS.

If local governments continue to provide green building incentives during tough economic times, it is essential for them to illustrate "real" returns. A government's building department or sustainability staff can easily be convinced that green building incentives are working, but if the tangible benefits are not evident to the wider public, it can be difficult for officials and community residents to justify their funding.

Local governments can and should track tangible benefits such as energy and water conservation, the impact on their tax base, and quality of life improvements. With government-process incentives, the government staff should track and celebrate the impact of each particular incentive program, rather than simply lumping results with other projects. To the extent possible, new incentives should first be vetted with appropriate market research. As a cautionary note, the National Renewable Energy Laboratory's (NREL) State Clean Energy Practices: Renewable Energy Rebates publication indicates that most rebates for renewable technologies did not fully accomplish their goal because rebates often targeted emerging industries with small market shares.[2] However, it can sometimes be expedient to implement partial adjustments and study new policies as they develop.

The city and county examples highlighted in this publication indicate that local green building incentives can be useful tools for shifting the local building market toward sustainable development. The report also raises several questions for further study:

- Can we calculate some of more intangible costs and returns, such as staff time and industry impact, associated with green building incentives?
- How effective are the different types of incentives compared to each other?
- What is the appropriate lifespan of an incentive?

[2] Lantz, Eric and Elizabeth Doris. "State Clean Energy Practices: Renewable Energy Rebates, Technical Report NREL/TP-6A2-45039." National Renewable Energy Laboratory. March 2009. 26 Oct. 2011. www.nrel.gov/applying_technologies/state_local_activities/pdfs/45039.pdf

GREEN INCENTIVE PROGRAMS, WHEN BALANCED BETWEEN ENVIRONMENTAL, ECONOMIC, AND SOCIAL DEMANDS, CAN HELP PROMOTE MORE SUSTAINABLE OUTCOMES FOR OUR COMMUNITIES THROUGH THE COLLABORATION OF LOCAL GOVERNMENT, DEVELOPERS, AND THE DESIGN AND CONSTRUCTION INDUSTRY.

The construction sector still faces enormous challenges and change can be difficult in an economic downturn. That is why it is important to recognize that most industry leaders are embracing green building and sustainable design strategies. The boom in green building at the end of the last real estate cycle proved that green building can offer better financial returns than traditional development and that achieving a higher level of sustainability is not simply a matter of green window dressing. Given this recent history, when the industry is re-invigorated, many communities will be well positioned to expect further progress toward the adoption of greater sustainable performance in the building sector.

When the private sector has difficulty making progress in an area that is so highly integrated with the public good, local governments have the tools—and the responsiblity—to incentivize better environmental performance by reducing the risks borne by the private sector. Green building is one of these activities that has been and will continue to be incentivized by local governments well into the future.

Local government budgets have been curtailed at a rate unprecedented in modern times. The design and construction industry has experienced the worst downturn since the Great Depression. In the midst of this collapse in the building industry, it is not so difficult to see the light at the end of the tunnel since the market for green buildings has continued to expand and local government leaders and advocacy groups have continued to push for sustainable planning for cities and counties. Green incentive programs, when balanced between environmental, economic, and social demands, can help promote more sustainable outcomes for our communities through the collaboration of local government, developers, and the design and construction industry.

WORKS CITED

Local Leaders in Sustainability: Green Incentives.
The American Institute of Architects, 2008.

The American Institute of Architects developed this report from the lessons learned at their Developers Roundtable presented in late 2007. The report provided the first comprehensive overview of the different kinds of local government green building incentives that were in use throughout the country.

www.aia.org/localleaders

Chappell, Theddi Wright.
2011 Green Building Opportunity Index.
Cushman & Wakefield. Sept. 19, 2011.

The report ranks U.S. cities by the activity of their real estate market and ability to cultivate green building investments. It uses the Green Building Opportunity Index to compare cities to their peers, which was influential in establishing the framework for categorizing and evaluating the local government green building incentives included in this report.

www.cushwake.com/cwglobal/jsp/servicesDetail.jsp?serviceId=c12100014p&Country=US&Language=EN

Lantz, Eric and Elizabeth Doris.
State Clean Energy Practices: Renewable Energy Rebates, Technical Report NREL/TP-6A2-45039.
National Renewable Energy Laboratory. March 2009.

The report profiles several case studies and examines the effectiveness of state renewable energy rebates in reducing technology costs, demonstrating technological feasibility, revealing potential market barriers, and increasing the market penetration of renewable energy technologies. It contributed to NACo and AIA's explanation of the challenges that state and local governments face when offering energy efficiency and renewable energy rebates to developers and residents.

www.nrel.gov/applying_technologies/state_local_activities/pdfs/45039.pdf

Sciortino, Michael.
States Stepping Forward: Best Practices for State-Led Energy Efficiency Programs.
American Council for an Energy-Efficient Economy. Sept. 2010.

The publication profiles winners from the first-ever ACEEE awards project for exceptional state-led energy efficiency programs. While it focuses exclusively on energy efficiency programs, NACo and AIA drew from the characteristics that made the programs successful and the practices that could be replicated at the local government level.

www.aceee.org/sites/default/files/publications/researchreports/E106.pdf

Sciortino, Michael.
How States Enable Local Government to Advance Energy Efficiency.
American Council for an Energy-Efficient Economy. May 2011.

The report by the ACEEE provides insight into the state and local government relationships that enable city and county governments to advance energy efficiency in their communities. It highlights a variety of state actions, including the requirement by states for local governments to address smart growth principles in their comprehensive plans; planning assistance; grants for plan updates; grants for energy reductions; rebates and tax credits for consumers and businesses; "stretch" building code; and tax policies. The report also includes an inventory of state energy efficiency programs.

www.aceee.org/files/pdf/white-paper/How%20State%20Governments%20Enable%20Local%20Governments_0.pdf

National Association of Industrial and Office Properties Research Foundation (NAIOP) and Yudelson Associates.
Green Building Incentives That Work: A Look at How Local Governments Are Incentivizing Green Development.
Nov. 2007.

The report provides an inventory of all incentives offered by local governments in 2007, as well as the response from the development community. NACo and AIA used it to benchmark against the current green building programs. The developers' perspective included in this report was considered in the development of the incentive pro-con evaluation grid. The report's methodology significantly influenced how NACo and AIA categorized and evaluated the incentives.

www.naiop.org/foundation/greenincentives.pdf

APPENDIX

Local Government Green Building and Energy Incentives

Incentive Category	Incentive Type	Definition	Objective	Eligible Sector	Typical Award	Examples
Government Process Improvement	Expedited Review	This strategy shortens the review process through prioritization of green building projects.	This strategy shortens the length of review and permitting processes to enable developers to begin turning a profit.	Commercial; Multi-Family	30 to 60 days saved in processing sooner.	San Bernardino County, CA; Scottsdale, AZ
Government Process Improvement	Expedited Permitting	This strategy shortens the permitting process through prioritization of green building projects.	This strategy shortens the length of review and permitting processes to enable developers to begin turning a profit sooner.	Commercial; Multi-Family		Santa Barbara County, CA; Santa Monica, CA
Government Process Improvement	Priority Inspections	This strategy prioritizes green building projects for inspections over main-stream projects.	This strategy shortens the length of review and permitting processes to enable developers to begin turning a profit sooner.	Commercial; Multi-Family		Santa Barbara County, CA
Government Process Improvement	Technical Assistance	Technical Assistance from a local government may include: one-on-one support from county staff, training programs, guidance documents, and/or case studies.	Free technical assistance helps to familiarize industry stakeholders with the local green building code.	Commercial; Multi-Family		Arlington County, VA
Education and Marketing	Publicity (Home Tour, Signage, etc.) and Awards	Free marketing assistance to help green builders to rent and sell their properties more effectively.	Build community awareness around green buildings. Increase business for local green builders.	Not necessarily specific to a particular building type or type or developer.	Raising awareness and the respect that comes with community support	Sarasota County, FL; Chicago, IL
Land Use Changes	Floor Area Ratio (FAR) and Density Bonuses	Density bonuses grant additional height or floor area to developers than allowed by the zoning code in exchange for building green.	This incentive provides green developers additional square footage or units for revenue generation.	Commercial; Multi-Family		Arlington County, VA; Bloomington, IN
Land Use Changes	TDR - Transfer Development Rights	TDR is a market-based technique for guiding growth away from sensitive areas and toward controlled development centers through the transfer of development rights from one area to another.	TDR directs development away from sensitive areas and provides. developers additional units for rent. This incentive supports other city/ county objectives, such as smart growth, transit-oriented development, and protection of farmland and wetland areas.	Commercial		Carroll County, MD
Land Use Changes	PUD - Planned Unit Development	Mixed-use development contained within a single development or subdivision.	Municipality can promote walkable, mixed-used communities directly through zoning. Developers can receive revenue from a variety of building types.	Commercial; Multi-Family		
Financial	Energy Efficiency Rebates	Provide energy efficiency and renewable energy products and installation at a reduced cost to consumers.	Rebates can help homeowners afford energy efficiency improvements. Rebates may help increase the market penetration of new technologies or products.	Residential		Santa Barbara County, CA; Avondale, AZ
Financial	Grants	Grants awarded to homeowners or developers to subsidize the construction of high-performance buildings.	Grants encourage developers to go green in markets that are evolving more slowly.	Commercial; Multi-Family; Residential		Santa Barbara County, CA; Detroit, MI
Financial	Fee Reductions (Developmental or Permit)	Waiver or reduction in fees charged for permit review or new development costs for green builders.	Incentive reduces the administrative costs for developers.	Commercial; Multi-Family		Indianapolis, IN

Incentive Category	Incentive Type	Definition	Objective	Eligible Sector	Typical Award	Examples
Financial	Revolving Loan Funds	Low-interest loans from a large pool to those seeking to perform energy efficiency updates or build green. The pool of funding is replenished through loan repayment.	Incentive establishes an on-going financing source for green building projects.	Commercial; Multi-Family		
Financial	Tax Abatements	Exemption of property taxes for a period of time after energy efficiency or renewable energy improvements have been made.	Incentive allows green builders, who may have to recoup the extra costs of building green, to pay reduced property taxes during the first months or years of their building's operation.	Commercial; Multi-Family		Harris County, TX; Cincinnati, OH
Financial	Property or Sales Tax Rebates	Percentage reduction in property taxes for a set period of time. The percent of property taxes reduced may correspond to a level of LEED operation.	Incentive allows green builders, who may have to recoup the extra costs of building green, to avoid property taxes during the first months or years of their building's certification achieved.	Commercial; Multi-Family		Montgomery County, MD
Financial	Property Assessed Clean Energy - PACE	Municipalities finance energy-related improvements to homes and businesses through property tax assessments, establishing a tax lien that is connected to the property, not the individual.	Through PACE, local governments can finance energy improvements without a large loan fund.	Residential; Commercial		Sonoma County, CA; Palm Desert, CA

APPENDIX

Local Government Green Building and Energy Incentives: Costs and Benefits

Incentive Type	Cost to Local Government				Benefit to Community
	Staff Time	Expertise	Monetary Cost	Political Will	
Publicity	**Low** Depends on project scale, but often low; existing staff capacity can be used	**Low/Medium** Some PR/Marketing knowledge required	**Low/Medium** Mostly administrative and staff time costs; some consulting costs could be required	**Low** Publicity programs can be undertaken by staff	Increased community awareness and buy-in for green development projects
Floor Area Ratio (FAR) and Density Bonuses	**High** Bonuses are often complex and require additional staff time for plan review and processing	**High** Evaluating the exchange between developers and counties takes additional skills and expertise	**Low** Negligible cost beyond staff hours	**High** Density evokes complicated issues that elected officials and many local citizens chose to engage in	Developers have additional units or square footage for rent. Municipality has ability to promote dense, walkable communities and development near transit areas.
TDR – Transfer Development Rights	**High** Since TDRs require zoning exceptions, careful review and board approval is required	**High** Because TDRs require zoning exceptions, unique knowledge and expertise is required	**Low** Negligible cost beyond staff hours	**High** Development rights evoke complicated issues that elected officials and many local citizens chose to engage in	Developers are building more effectively and sustainably and benefit from increased number of units of square footage. TDR furthers municipal goals of smart growth, farmland/wetland protection, etc. Municipality avoids the cost of extending new infrastructure to developments in areas presently undeveloped.
PUD – Planned Unit Development	**High** Since PUDs require zoning exceptions, careful review and board approval is required	**High** Because PUDs require zoning exceptions, unique knowledge and expertise is required	**Low** Negligible cost beyond staff hours	**High** Development rights evoke complicated issues that elected officials and many local citizens chose to engage in	Municipality can promote walkable, mixed-used communities directly through zoning
Energy Efficiency Rebates	**Medium** Staff time required for program administration	**Medium** Relatively challenging program to establish and control for quality	**High** Unless funds come from grants, which are difficult to receive, funds must come directly from local government budgets or loans	**Medium** Funding with grants will likely NOT require public engagement; funding with local budgets or loans WILL likely require public engagement	Increased market penetration can reduce the cost of new technologies. The impact of rebate programs is often inadequately assessed.
Grants	**Medium** Some staff time required for program administration	**Medium** Relatively challenging program to establish and control for quality	**High** Unless funds come from grants, which are difficult to receive, funds must come directly from local government budgets or loans	**Medium** Funding with grants will likely NOT require public engagement; funding with local budgets or loans WILL likely require public engagement	Green jobs. Increased property values.
Fee Reductions	**Low** No additional staff time required for program administration	**Low** No expert green building knowledge required	**Low/Medium** Depending on level of fee reduction, overall program costs are relatively small	**Low** Activity does not rise to the level of official or citizen engagement	Increased property value of new properties

Incentive Type	Cost to Local Government				Benefit to Community
	Staff Time	Expertise	Monetary Cost	Political Will	
Revolving Loan Funds	**High** Complex process for set up and administration requires additional staff time	**High** Complex process for set up and administration requires significant expertise	**High** Unless funds come from grants, which are difficult to receive, funds must come directly from local government budgets or loans	**High** Funding with grants will likely NOT require public engagement; funding with local budgets or loans WILL likely require public engagement	Municipality can provide an easy way to extend the "shelf-life" of one-time state or federal funds, such as EECBG.
Tax Abatements	**Medium** Staff time required for program development and administration	**Medium** Abating taxes is complex politically and will require a process	**High** Upfront loss of property tax revenue	**High** Funding with local budgets or loans WILL likely require a high level of public engagement	Long-term increased tax revenue from green building projects.
Property or Sales Tax Rebates	**Medium** Staff time required for program development and administration	**Medium** Abating taxes is complex politically and will require a process	**High** Upfront loss of tax revenue	**High** Funding with local budgets or loans WILL likely require a high level of public engagement	Long-term increased tax revenue from green building projects.
Property Assessed Clean Energy (PACE)	**Medium** Staff time required for program development and administration	**Low** PACE Programs are complex to set up and administer	**High** Unless funds come from grants, which are difficult to receive, funds must come directly from local government budgets or loans	**High** Funding with grants will likely NOT require public engagement; funding with local budgets or loans WILL likely require public engagement	Municipalities are able to finance energy efficiency improvements without an established pool of loan funds.

APPENDIX

Inventory of City and County Green Building Incentives

COUNTY INCENTIVE EXAMPLES

GREEN BUILDING INCENTIVES

State	County	Incentives	Scale	Date Established	Web Address	Contact	Email	Phone
CA	Alameda	Green Building Grants, Technical Assistance, Education		2001	www.stopwaste.org	Wes Sullens	wessullens@stopwaste.org	(510) 891-6500
CA	San Bernardino	Accelerated Plan Review, Priority Inspections, Design Assistance, Awards			www.sbcounty.gov	John Dwiers	jdwiers@lusd.sbcounty.gov	(909) 387-4246
CA	San Diego	Rebates, Expedited Review			www.sdcounty.ca.gov			(858) 565-5920
CA	San Francisco	Expedited Review, Technical Support						
CA	San Mateo	Expedited Permitting		2008	www.co.sanmateo.ca.us			
CA	Santa Barbara	Expedited Review, Fee Reduction				Building and Safety Division	poates@co.santa-barbara.ca.us	
CO	Eagle	Permit Rebate	Residential	2001		Adam Palmer	adam.palmer@eaglecounty.us	
FL	Charlotte	Expedited Permitting, Marketing Assistance	Commercial, Residential	2009	www.usgbc.org			
FL	Hillsborough	Expedited Permitting	Commercial, Residential	2007		Dyan Backe	backed@hillsboroughcounty.org	(813) 307-4507
FL	Miami-Dade	Expedited Review, Revolving Loan Fund						
FL	Sarasota	Expedited Review, Priority Inspections			www.scgov.net	Nina Powers	npowers@scgov.net	(941) 650-0876
FL	Volusia	Fee Reduction, Expedited Permitting		2009	www.dsireusa.org	Dan Vancini	dvancini@co.volusia.fl.us	
GA	Chatham	Tax Exemption	Commercial	2006		County Manager	reabolt@chathamcounty.org	
MD	Anne Arundel	Property Tax Credit	Residential		www.dsireusa.org		custserv@aacounty.org	(410) 222-1739
MD	Baltimore	Property Tax Credit	Commercial, Residential, Multi-Family		www.baltimorecountymd.gov			
MD	Baltimore	Property Tax Credit	Commercial	2006	www.baltimorecountymd.gov	Elizabeth Glenn	eglenn@baltimorecountymd.gov	
MD	Baltimore	Tax Credit	New Residential	2008	www.baltimorecountymd.gov			
MD	Carroll	Property Tax Credit	Commercial, Industrial	2009	www.dsireusa.org		info@carrollbiz.org	(410) 386-2070
MD	Howard	Property Tax Credit	Commercial, Residential, Multi-Family	2008	www.countyofhowardmd.us			(410) 313-3196
MD	Montgomery	Property Tax Credit	Commercial, Industrial, Multi-Family	2007	www.montgomerycountymd.gov	Kathleen Boucher	kathleen.boucher@montgomerycountymd.gov	(240) 777-0311

GREEN BUILDING INCENTIVES

State	County	Incentives	Scale	Date Established	Web Address	Contact	Email	Phone
NC	Catawba	Rebate	Commercial, Residential, Construction		www.catawbacountync.gov		joelh@catawbacountync.gov	(828) 465-8376
NC	Chatham	Rebate	Residential	2010	www.chathamnc.org	Sybil Tate	sybil.tate@chathamnc.org	(919) 545-8365
NC	Mecklenburg	Rebate	Commercial, Residential	2007	www.charmeck.org	Heidi Pruess	heidi.pruess@mecklenburgcountync.gov	
NY	Onondaga	Tax Credit	Commercial, Residential	2007	ssyracusecentral.com	Greg Hitchin		(315) 435-3770
TX	Harris	Property Tax Abatement	Commercial, Residential	2008	www.csd.hctx.net	Jean Anne Spivey	jeananne_spivey@hctx.net	
VA	Arlington	Density/Height Bonus, Education, Marketing	Commercial, Residential	1999	www.arlingtonva.us	Jessica Abralind, LEED AP	jabralind@arlingtonva.us	(703) 228-0628
WA	King	Grant Program	Commercial, Residential	Updated 2006	www.cityofseattle.net		katie.spataro@metrokc.gov	
WA	Whatcom	Education		2005	www.co.whatcom.wa.us			
NM	Bernalillo	Reduced Fees (Impact Fees)	Residential	2009	www.bernco.gov	Nick Hamm	nhamm@bernco.gov	(505) 314-0350

ENERGY EFFICIENCY AND RENEWABLES INCENTIVES

State	County	Incentives	Scale	Date Established	Web Address	Contact	Email	Phone
CA	Marin	Implements statewide energy efficiency program, Solar Rebate, Wood Stove Rebate			www.co.marin.ca.us	Omar Pena	opena@co.marin.ca.us	(415) 507-2797
CA	Santa Barbara	Energy Efficiency and Renewable Financing Program (loan loss reserve of grant funds)	Single Family Homeowners	2009		Angie Hacker		(805) 568-3515
CA	Sonoma	PACE Financing			www.dsireusa.org			
CO	Boulder	Solar Water Heat and Photovoltaic Rebate, PACE (Climate Smart Communities, currently on hold)	Nonprofit, Multi-Family Residential, Low-Income Residential		www.bouldercolorado.gov	Beth Roberts	robertsb@bouldercolorado.gov	(303) 441-1828
CO	Denver	Loan Program	Small Business		www.denvergov.org	Sharon Procopio	bizenergy@denvergov.org	(720) 913-1516

ENERGY EFFICIENCY AND RENEWABLES INCENTIVES

State	County	Incentives	Scale	Date Established	Web Address	Contact	Email	Phone
FL	Orange	Rebate	Residential	2010	www.ocfl.net	Jane Gregory	jane.gregory@ocfl.net	(407) 836-1400
FL	Sarasota	Loan Program	Residential	2009	www.dsireusa.org	Debra Figueroa		(800) 342-5375
FL	Sarasota	Rebate	Residential, Multi-Family, Low-Income Residential	2010	www.scgov.net		getenergysmart@dwellgreen.com	(800) 863-1794
HI	Honolulu	Property Tax Exemptions for Alternative Energy Improvements	Commercial, Industrial, Residential	2009	www.dsireusa.org			
HI	Maui	Solar Roofs Loan Program	Residential	2002	www.mauielectric.com	Cheryl Correa	cheryl.correa@mauielectric.com	(808) 871-2330
MD	Anne Arundel	Solar and Geothermal Property Tax Credit	Residential		www.dsireusa.org		custserv@aacounty.org	(410) 222-1739
MD	Harford	Solar and Geothermal Property Tax Credit	Commercial, Industrial, Residential	2006	www.harfordcountymd.gov			(410) 638-3326
MD	Howard	Solar and Geothermal Property Tax Credit	Residential, Multi-Family, Low-Income Residential	2007	countyofhowardmd.us			(410) 313-3196
MD	Montgomery	Solar and Geothermal Property Tax Credit	Residential	2008	www.montgomerycountymd.gov		treasury@montgomerycountymd.gov	(240) 777-0311
MD	Prince George's	Solar and Geothermal Property Tax Credit	Residential	2008	www.dsireusa.org			(301) 952-4030
MO	St. Louis	Loan Program	Residential		www.stlouiscountysaves.com	Anne Klein	info@stlouiscountysaves.com	(314) 332-2156
OH	Hamilton	Loan Program	Commercial, Residential, Multi-Family	2002	www.hamiltoncountyohio.gov	Jay Springer	jay.springer@hamilton-co.org	(513) 946-4459

CITY INCENTIVE EXAMPLES

GREEN BUILDING INCENTIVES

State	City	Incentives	Scale	Date Established	Web Address	Contact	Email	Phone
AZ	Scottsdale	Expedited Plan Review, Education, Marketing		1998	www.scottsdaleaz.gov	Anthony Floyd, AIA LEED AP	afloyd@scottsdaleaz.gov	(480) 312-4202
AZ	Chandler	Expedited Plan Review, Marketing	Commercial	2008	www.chandleraz.gov	David de la Torre, AICP	david.delatorre@chandleraz.gov	(480) 782-3059
AZ	Tucson	Fee Waiver	Commercial, Residential	2005	www.dsireusa.org	Bruce Plenk	bruce.plenk@tucsonaz.gov	(520) 837-6322 Ext.327
AZ	Maricopa	Solar Rebate	Commercial, Residential		www.maricopa-az.gov	Rudy Lopez	rodolfo.lopez@maricopa-az.gov	(520) 316-6986
CA	San Diego	Expedited Permitting	Commercial, Industrial, Residential	2003	www.sandiego.gov		energy@sandiego.gov	(858) 694-7000
CA	Santa Monica	Expedited Permitting, Fee Waiver	Commercial, Residential	2005	www.smgov.net/	Brendan McEneaney, LEEP AP	brenden.mceneaney@smgov.net	(310) 458-8549
CA	San Francisco	Solar Rebate	Commercial, Industrial, Residential	2007	sfwater.org	Angela Patane	solarincentive@sfwater.org	(415) 551-4318
CO	Boulder	Solar Rebate	Nonprofit, Affordable Housing		www.bouldercolorado.gov	Beth Roberts	robertsb@bouldercolorado.gov	(303) 441-1828
CO	Lakewood	Solar Permit Fee Rebate	Commercial, Residential	2009	www.lakewood.org		engineering@lakewood.org	(303) 987-7500
HI	Honolulu	Property Tax Exemption	Commercial, Industrial, Residential	2009				
IN	Bloomington	Density Bonus	Commercial, Residential	2006	bloomington.in.gov	City of Bloomington	economicvitality@bloomington.in.gov	(812) 349-3418
IN	Indianapolis	Permit Fee Rebate	Commercial, Industrial, Residential	2010	www.indy.gov	Allyson Pumphrey	apumphre@indygov.org	
IL	Chicago	Expedited Permitting	Commercial, Industrial, Residential		www.cityofchicago.org			
NC	Asheville	Permit Fee Waiver	Commercial, Residential	2009	www.ashevillenc.gov	Mark Case		(828) 259-5628
OR	Ashland	Density Bonus	Residential		www.ashland.or.us	Larry Giardina	giardin@ashland.or.us	(541) 552-2065
OH	Columbus	Grant	Commercial, Industrial, Residential	2010	econdev.columbus.gov	David Hull	dkhull@columbus.gov	(614) 645-6630
OH	Akron	Rebates	Residential	2011	ci.akron.oh.us	Department of Planning and Urban Development		(330) 375-2696

GREEN BUILDING INCENTIVES

State	City	Incentives	Scale	Date Established	Web Address	Contact	Email	Phone
OH	Cincinnati	Property Tax Abatement	Commercial, Industrial, Residential	2007	www.cincinnati-oh.gov	Eric Denson	eric.denson@ cincinnati-oh.gov	(513) 352-4981
OH	Cleveland	Property Tax Abatement	Residential	2010	www.city.cleveland.oh.us	City of Cleveland Department of Community Development	jmcgowan@ city.cleveland.oh.us	(216) 664-3442
TX	Dallas	Expedited Permitting	Commercial, Residential	2008	www.dallascityhall.com	Theresa O'Donnell	biadmin@ dallascityhall.com	(214) 948-4320
TX	Houston	Property Tax Abatement	Commercial	2009	library.municode.com	Tim Douglass	tim.douglass@ houstontx.gov	(713) 837-9857
TX	San Antonio	Property Tax Abatement	Commercial	2010	www.sanantonio.gov	International and Economic Development Department		(210) 207-8080
TX	Friendswood	Property Tax Abatement	Commercial	2011	www.ci.friendswood.tx.us	The City of Friendswood		(281) 996-3200
WA	Seattle	Density Bonus	Commercial, Residential	2006	www.seattle.gov	Peter Dobrovolny	peter.dobrovolny@	(206) 615-1094 seattle.gov

ENERGY EFFICIENCY AND RENEWABLES INCENTIVES

State	City	Incentives	Scale	Date Established	Links	Contact	Email	Phone
AZ	Avondale	Rebates	Residential		www.avondale.org	Mark Mangano	mmangano@avondale.org	(623) 333-1033
CA	Long Beach	Rebates	Residential	2010	www.longbeach.gov	Dale Wiersma	dale.wiersma@longbeach.gov	(562) 570-5237
CA	San Francisco	Rebate	Commercial, Residential		www.sfenvironment.org	Matt Greco	matthew.greco@sfgov.org	(415) 355-3708
CA	Palm Desert	PACE Financing	Commercial, Industrial, Residential	2008	www.cityofpalmdesert.org			(760) 837-0287
CT	Litchfield	Energy Efficiency Rebate	Commercial, Nonprofit		www.torringtonct.org	Ricky Lynn	lhceo1@snet.net	(860) 491-9884
FL	Fort Lauderdale	Efficiency/ Solar Rebate	Residential	2010	www.fortlauderdale.gov	City of Fort Lauderdale		(954) 828-8000
GA	Atlanta	Efficiency/ Solar Rebate	Residential	2010	www.atlantaga.gov	General Inquiries–SHINE	shine@atlantaga.gov	
GA	Decatur	Rebates	Residential	2011	www.decaturga.com	DecatureWISE Rebate Program	decaturwise@ clearesult.com	(678) 954-7283
IN	Indianapolis	Loan	Commercial, Industrial, Residential	2011	www.inhp.org	LaWayne Hunter	lhunte@inhp.org	(317) 610-4652

ENERGY EFFICIENCY AND RENEWABLES INCENTIVES

State	City	Incentives	Scale	Date Established	Web Address	Contact	Email	Phone
LA	Shreveport	Loan	Commercial, Residential	2011	www.shreveportla.gov	Tracey Graham	tracey.graham@shreveportla.gov	(318) 673-6594
MA	Boston	Rebates	Residential	2010	www.renewboston.org	Renew Boston Information	saveenergy@renewboston.org	(617) 635-7283
MN	Duluth	Rebates, Loans	Residential		duluthenergy.org	Duluth Energy Efficiency Program	info@duluthenergy.org	(218) 336-1038
MI	Detroit	Grants, Loan	Commercial, Public	2009	www.degc.org	SmartBuildings Detroit	scottveldhuis@degc.org	(313) 963-2940
NY	Riverhead	Fee Discount	Commercial, Residential	2005	www.riverheadli.com	Leroy Barnes Jr.	barnes@riverheadli.com	(631) 727-3200 Ext.264
NC	Carrboro	Loans	Commercial, Nonprofit		www.ci.carrboro.nc.us	James Harris	jharris@townofcarrboro.org	(919) 918-7319
NC	Chapel Hill	Rebates	Residential		www.townofchapelhill.org	Nora Barger	nbarger@cleanenergysol.com	(919) 918-7334
OK	Oklahoma City	Loans	Residential	2009	www.okc.gov	Bonnie Schwartz	OKACAA@yahoo.com	(405) 232-0199 Ext.3205
SC	Charleston	Rebates	Commercial, Residential		www.charlestonwise.org	Ben Leigh	ben@sustainabilityinstitutesc.org	(843) 529-3421
TX	Houston	Grants	Commercial	2011	www.houstongoc.org	Information Energy Efficiency Incentive Program	hanna.murphy-pack@houstontx.gov	(832) 393-1010
TX	San Antonio	Loans	Commercial, Industrial, Agricultural	2010	www.sanantonio.gov	Office of Environmental Policy	citylights@sanantonio.gov	(210) 207-0255
VA	Fredericksburg	Rebates	Residential	2011	www.gwhelp.org	Kevin Byrnes	byrnes@gwregion.org	(540) 373-2890 Ext.18
WI	Madison	Loans	Residential	2011	cityofmadison.com	Green Madison	greenmadison@cityofmadison.com	(877) 399-1204
WI	Milwaukee	Loans	Residential	2011	www.smartenergypays.com	Milwaukee Energy Efficiency	me2@milwaukee.gov	(877) 399-1203