

**The Southeast Energy Efficiency Alliance Green City Program**

***Assisting Cities and Municipalities to Engage Customers and Develop Effective Energy Efficiency Programs***

Ben Taube, *LEED AP*

Executive Director

Southeast Energy Efficiency Alliance

999 Peachtree Street, NE Suite 1950

Atlanta, GA 30309 USA

[ben@seealliance.org](mailto:ben@seealliance.org)

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## ABSTRACT

The Southeastern region of the United States is at a critical turning point in its development. With twice the population growth of the country overall, the demand for energy is projected to increase by 30% in the next 20 years, with much of the electricity load growth to be met by new baseload plants. This presentation describes the work of a competitive City model for energy efficiency programs in the Southeast.

**PHASE I** established a more concrete, long term vision for energy programs by achieving the following: Recruiting program partners; Outlining funding opportunities; Creating a competitive request for proposal for cities marketing and outreach activities.

**PHASE II** works with existing capacity in a selected city and over a two year period to establish long-term, self sustaining mechanisms for reducing the energy use across all sectors while creating a new economy around efficiency. The City of Charlottesville, VA was selected in July 2009 for the project. During this phase, the following items occur: Organizing work; Concrete commitments; Implementation providers are identified; Financial commitments are identified; Programmatic goals and operating procedures are created.

**Phase III** will be the full scale implementation of the city model for energy efficiency. The key to the success of this program is strong partnerships, communication and support from public and private sectors on best practice energy efficiency technology, programs, and financial solutions. This paper will present the process and implementation of the success of a Southern city to drive the deployment of energy efficiency.

In February 2009, The Southeast Energy Efficiency Alliance (SEEA) released a Request for Proposals (RFP) from cities and counties within its region. Applicants were requested to create a community-wide energy efficiency alliance that would develop effective and engaging programs to improve and enhance energy efficiency within their jurisdiction by educating communities and implementing the necessary support infrastructure to facilitate building efficiency retrofits and upgrades.

The proposed program designs were to be largely based on efforts underway in Cambridge, Mass., Cincinnati, Ohio, New York, N.Y. and the U.S.

Virgin Islands; the program goals of which are to create a five-to seven-year program that would achieve unprecedented gas, electricity, and water savings by retrofitting homes businesses, schools, and industrial buildings with efficient and renewable technologies. When implemented, the successful program will work toward the goal of saving participants in the winning city 20-40% on energy and water fees.

The competition was open to cities and counties in SEEA's 12-state region of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and the U.S. Virgin Islands. Proposals were due May 15, 2009, and were reviewed by an advisory panel of national experts in early June 2009. Criteria for selection included the depth of community involvement and support; comprehensiveness of the plan, to include program design, milestones, and demonstrated understanding of the community's market and energy characteristics; reasonableness of project objectives; and innovation in program design, marketing strategy, technology focus, and financing options.

The City of Charlottesville, VA won the competition and was awarded \$500,000 for their proposed energy efficiency program. LEAP – Local Energy Alliance Program. Additionally, both Charlottesville and Albemarle have dedicated funds from the Energy Efficiency and Conservation Block Grant (EECBG) funding through the American Recovery and Reinvestment Act of 2009, giving the new program an additional \$255,000 in startup funding, \$60,000 of which is from County allocations. LEAP programs began to be offered to customers earlier this year, and are focused primarily on single family residential homes.

Charlottesville's winning program is designed to be a local energy program that will achieve unprecedented energy and water savings by retrofitting buildings and installing renewable technologies in all end use sectors. The program is designed to achieve 30% - 50% market penetration with a 20% - 40% efficiency gain in 5-7 years.

The LEAP design includes a:

- Public-private partnership and a market-making approach
- Focus on building science, systems, and usage behavior
- Primary emphasis on energy efficiency

- Plan to deliberately phase in alternative and renewable generation

LEAP's goal is to grow the performance contracting market at such a scale that will develop new economic sectors, businesses, and infrastructure. LEAP will help put people to work and revitalize the local construction industry.

Additionally, an important underlying goal was to create a program model that is appropriate to the region, but also that will also be adaptable to and replicable in other communities.

Accomplishments to date for Charlottesville's LEAP include the following:

- Hiring of an Executive Director for the Local Energy Alliance Program (LEAP) in Charlottesville, VA on March 22, 2010.
- Completion of a graphic logo design and website revision for the Charlottesville program. Website is located at [www.va-leap.org](http://www.va-leap.org)
- Fully created a Governance Board for LEAP.
- Acquired office space and office equipment for LEAP

- Launched residential energy audit pilots in the Charlottesville community
- Launched a Home Energy Makeover Contest

**SEEA's GREEN CITY PROGRAM (GCP)**

In April 2009, SEEA was awarded \$20 million in funding from the U.S. DOE to assist select cities in their region to develop comprehensive municipal energy efficiency programs. These Green City Programs will be based upon the successful Charlottesville model and will have a much larger scope and regional effect on energy efficiency when collectively administered.

Through a RFP and formal review process, twelve Southeastern cities and the U.S. Virgin Islands were selected to participate in a regional effort led by SEEA to develop successful community-based energy efficiency programs that will create significant progress toward achieving financial, environmental, and community-specific goals. The cities selected for the GCP are noted on Figure 1.



Figure 1 – SEEA Green City Program - Award Cities

In order to best serve the selected cities in developing their energy efficiency programs, SEEA will consult and assist each city as needed. Based upon our initial experience with the Charlottesville, VA project, SEEA has developed several guidelines for creating, implementing, and sustaining successful Community-based Energy Efficiency programs.

Without adequate marketing, dedicated and ongoing education and outreach, contractor infrastructure, strong program design, and an effective coordinating agency, EE programs will not be effective or successful. Incorporating each of these components into program design offers the promise of dramatically increasing reach, cost-effectiveness, and sustainability. In addition, integrating principles of behavioral science principles, cities and municipalities can dramatically increase the effectiveness of their efficiency programs and affect long-term change in consumer behavior.

SEEA has identified several guidelines for assisting cities in designing and implementing energy efficiency programs to meet their objectives. Initially, it should be determined if an independent Energy Efficiency Alliance should be formed to assist with the administration of program objectives. Some cities may already have resources and departments established to develop and govern efficiency program, but in some cases, the cities' objectives may be best served by bringing together a coalition of stakeholders to design an effective program.

To make this determination, SEEA recommends the following be considered:

- What is the structure for the energy program delivery? Would it duplicate existing resources or services?
- What would it do?
- Will it gain political and community support?
- Will it have the intellectual and technical expertise to succeed?
- How can it generate the financial support necessary to succeed short and *long term*?

Upon determination that an Energy Efficiency Alliance should be formed, SEEA will assist cities in bringing together an effective group of stakeholders – each city has particular political and socioeconomic factors that are key to developing a successful EE Alliance. Members may include: local elected officials, utility/power provider representatives, local nonprofits or foundations, neighborhood and

community leaders, business leaders, civic organizations, and the like.

SEEA will also advise in tasks such as legal structure, human resources, operational strategy, mission/goal setting, and ensuring that the new EE Alliance has a scope that will be sustainable after the SEEA grant period ends.

Four elements are critical to a far-reaching and impactful community energy efficiency program: 1) Careful upfront organization of a coordinating body or Energy Efficiency Alliance, 2) Seamless program design, 3) Attractive financing options, and 4) Effective marketing and outreach. To achieve high participation rates, significant energy savings, and program persistence, SEEA will assist cities in developing this most critical element: clear and effective communications, engagement, and education programs.

SEEA will consult with GCP cities to determine their primary objectives for an efficiency program, and to identify the demographic composition of a valid sample group of customers from which to solicit input. Survey creation, administration, and data collection support will be provided by SEEA so cities will have strong resources from which to create EE programs.

The SEEA Green City Program will then assist municipalities in coordinating efforts for administering, measuring, and validating program success. Marketing and outreach programs will be designed to meet the Energy Efficiency objectives of each city, and will be designed to reach the varied and unique needs of their customer base. SEEA has developed several components to assist GCP cities in building robust and relevant engagement programs that have clear and unique messages and opportunities for participation by the different demographic groups of their customer base. It is also imperative that all sectors of the community become engaged, and the Green City Program is designed to incorporate power providers, local businesses, civic organizations, NGO's/agencies, not-for-profits, and community organizers. This holistic approach to developing an energy efficiency program provides much greater community buy-in and participation on many levels: there is "something for everyone" – it offers numerous opportunities for reaching customers and incenting for participation.

SEEA GCP will also assist cities in collecting and building a database of qualified Performance Contractors and service providers to provide inspections and efficiency retrofits for homeowners.

Information on available financing strategies and rebates/incentives will also be made available to residential customers through the GCP to facilitate efficiency improvements.

The key to affecting real energy efficiency is to clearly identify program objectives, to create an effective coordinating body to administer EE programs, and to address customers on a community level. The SEEA Green City Program will take over a dozen Southeastern cities and build a model for these community-based efficiency programs that can be used across the country. Building on the real-world experience and measured success from the first year of Green City Program, awards will be made by SEEA for the continuation of efficiency programs and performance for a subsequent period of two years; at which time it is anticipated these 13 Green City Programs will be self sustaining and continuing to evolve to meet the energy efficiency objectives of each community.