

**CLIMATE SMART COMMUNITIES PILOT PROGRAM STATEWIDE COORDINATOR
AND DEVELOPER OF LEADING PRACTICES TOOLKIT**

Final Report

Prepared for

THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

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INTRODUCTION

In April of 2012, the New York State Energy Research and Development Authority (NYSERDA) contracted with the Environmental Analysis and Communication Group at the Edward J. Bloustein School of Planning and Public Policy of Rutgers University (Rutgers) to serve as statewide coordinator and develop a toolkit and compendium of best practices to inform the activities of participants in the Climate Smart Communities program, which is run by the New York State Department of Environmental Conservation (NYSDEC). The focus of the compendium and toolkit was to be best practices in six areas: land-use, transportation, green building, housing policy, infrastructure investment, and green infrastructure.

PROJECT DEVELOPMENT

“KICK-OFF”

Rutgers held a “kickoff” meeting with staff from NYSEDA and NYSDEC on June 20, 2012 at NYSEDA’s office in New York City. At that meeting the participants reviewed the tasks outlined in the contract to both refine what was in it and determine the approach that Rutgers would take in developing the compendium and toolkit. Following the tasks as outlined in the contract, the decision points are listed below:

- ***Survey/needs assessment*** of the CSCs, MPOs, NYS agencies, CGC awardees.

Rather than initiating a needs assessment after the participating communities had already been working with their regional coordinators, Rutgers would conduct in-depth discussions with the regional coordinators to gather an understanding of community needs.

- ***Prepare a Communications and Outreach Plan.***

The Communications and Outreach Plan would effectively be a workplan for the project that would outline the steps that Rutgers would complete within an approximate timeframe.

- ***Link to Transportation and Climate Initiative.***

Rutgers would ensure that any recommendations for action that come out of the TCI Sustainable Communities Work Group would be translated to a format that is relevant to New York State Communities to the extent that this was possible.

- ***Summarize “best practices” of sustainability within NYS and other TCI states. Develop a compendium in the form of a searchable database.***

It was generally agreed that this task would be the primary deliverable from this contract. Rutgers would develop a searchable database that would be accessed via a web-interface that would serve as an interactive toolkit.

- ***Implement communications and outreach plan.***

This task would cover the development of an effective web interface and any webinars, workshops, or other forms of outreach sessions needed to make it accessible to the climate smart communities.

- ***Final report.***

This would remain consistent with the description in the contract. This document is the Final Report.

COMMUNICATION AND OUTREACH PLAN

The Communications and Outreach Plan was submitted, edited, finalized, and approved in August 2012.

NEEDS ASSESSMENT

Over the summer months, Rutgers staff Stacy Perrine and Veda Truesdale conducted in-depth discussions with all of the regional coordinators to assess the needs of the Climate Smart Communities. Rutgers conducted a webinar with staff from NYSERDA and NYSDEC to discuss lessons learned from the discussions with the regional coordinators and highlight how those lessons would influence their approach to the development of the leading practices toolkit. Rutgers summarized Climate Smart Communities concerns as follows:

- Communities want examples. They want to know what these concepts look like.
- There is significant concern about protecting local character.
- Local officials want to be able to quantify cost savings from any actions they take. Taxes are a very big concern in many areas.
- Leadership is important for some (but not all) communities. Some want to be viewed as pioneers.
- Many communities are overwhelmed and confused by the finer details. Conflicting priorities are a challenge, e.g. promoting green building while preserving historic areas and structures.
- Information about innovative financing is useful.
- The challenge of translating land-use actions into GHG emissions can be a deterrent to decisive action.
- Communities could use assistance figuring out how to overcome fiscal issues relating to brownfields redevelopment.
- Need assistance with suburban retrofit/ working with existing road network.
- Consensus building is a real challenge. Stories and case studies about consensus- driven planning endeavors are helpful.

DATABASE AND TOOLKIT DESIGN AND DEVELOPMENT

After developing an understanding of the needs of the climate smart communities the Rutgers team began the process of developing a concept for the toolkit and associated database. While the concept initially appeared to be relatively straightforward, it rapidly became apparent that there were many factors to consider before building the database and toolkit. Among them were New York State's accessibility requirements for all websites, determining who would host the database and toolkit, choosing an appropriate database program to house the compendium, navigating the varying procurement rules of New York State and Rutgers University, and making the interface design consistent with the New York State Department of Environmental Conservation's Climate Smart Communities website. Each of these decision points required discussion between multiple staff members at NYSERDA, NYSDEC, and Rutgers.

By mid-October Rutgers and NYSDEC had addressed most of these questions and had concluded that the database would be hosted on an external website using MySQL software. Because Bluehost, the chosen hosting service, is relatively low-cost, NYSDEC was able to buy the first year of hosting without going through a procurement process. Purchase of the site enabled the Rutgers IT staff to begin developing a web interface that would meet the needs of the Climate Smart Communities' stakeholders. This portion was particularly challenging due to the fact that the database had not yet been developed, nor had the content on the database been fully outlined. While participants had a rough understanding of the functions they would like to see in the toolkit/interface, it was not yet possible to know which information would, in fact, be available. As the Rutgers staff continued to research and assemble the content of the database it became apparent that some of the fields that had been suggested would actually be feasible within the time and resource constraints of this project. Most notably, all project team members agreed that the inclusion of a cost-benefit analysis for the practices in the database would be ideal, investigation revealed that detailed cost-benefit information is not currently available for the majority of the practices and conducting such an analysis for each item in the database would be far beyond the scope of this project. Rutgers sent a memo to the project leads on November 21, 2012 detailing what they presently felt would be feasible to include as attributes in the two databases.

Concurrently with the discussions of the database and toolkit development Rutgers staff continued to collect documentation about leading practices for local governments and stakeholders to reduce greenhouse gas emissions consistent with the six areas of focus. In the absence of a pre-existing database, the actions were stored and managed in an Excel spreadsheet. As staff understanding of the content and functionality of the database continued to change the structure of the Excel document had to be modified several times. This approach turned out to be a weakness in the project design. With the benefit of hindsight Rutgers staff believes they would have been better served had they completely assembled the compendium of practices first and then designed the database and toolkit structures. The overlap between these two tasks led to excessive confusion and the need to reorganize the data several times.

The Rutgers IT staff hired a student from the Rutgers Computer Programming Department to develop the database infrastructure. That student began work in late winter and completed the basic database infrastructure in mid- April. Initially, the Rutgers IT staff felt that the process of entering data from the Excel spreadsheet into the database could be automated. However, the automation process turned out to be more challenging than anticipated so Rutgers staff began the process of entering the data manually. As of the writing of this document the practices database is approximately 90% complete, however the municipalities portion is only 10% complete. Rutgers staff anticipate completing the process via an automated data transfer within the next two weeks.

DIRECT ASSISTANCE EFFORTS

Webinars

One of the first requests the Rutgers team received was to conduct an informational webinar on how to quantify the greenhouse gas emissions reductions associated with recommended land-use practices at the local level. Rutgers conducted a webinar on October 11, 2012 to provide both an overview of the most current state of knowledge in this field and three perspectives of how this challenge has been addressed around the country. Veda Truesdale began with an overview of the various options for making such calculations and was followed by presentations from Jeff Perlman of the North Jersey Transportation and Planning Agency (NJTPA), Jerry Walters of Fehr & Peers, and Kevin Shively of Nelson\Nygaard.

In February Rutgers staff Veda Truesdale and Stacy Perrine provided an overview of their work to date on the development of the Leading Practices Toolkit. The webinar was designed to get feedback from the Climate Smart Communities program participants.

Other Activities

As Rutgers has been developing the leading practices toolkit, NYSERDA and NYSEC have contracted with the firm Vanasse Hangen Brustlin (VHB) to develop a certification program for the Climate Smart Communities Program. Rutgers staff member Veda Truesdale has been involved in a widely-recognized community certification program, Sustainable Jersey, since its inception in 2009. She attended the kick-off meeting for the Climate Smart Communities certification program on January 30, 2013 and participated in several follow-up conference calls with the staff of NYSERDA, NYSDEC, and VHB to help ensure consistency between the contents of the toolkit and the certification program, as well as share information about the overall format of the database.

BRIDGE TO TCI

The original scope of work calls for the Rutgers team to “provide a bridge role between the CSC efforts of NYS and the efforts of the sustainable community efforts of the TCI to ensure that innovative sustainable community efforts being examined or developed through TCI are highlighted for the CSC participants.” Veda Truesdale, the project manager for the toolkit; and Jeanne Herb, principal investigator; both provide support

to the Transportation and Climate Initiative, which is run by staff of the Georgetown Climate Center. Since the inception of this contract, the TCI Sustainable Communities Work Group has mostly focused on state level policies and indicators. Rutgers staff developed a set of “scoping papers” to provide in-depth information to the participating TCI states on a set of sustainable community indicators that may be best-suited to demonstrate the effectiveness of state level policies to promote sustainable community development and have regularly communicated with staff members of NYSERDA, NYSDEC, and the New York State Department of Transportation (NYSDOT) to determine both how they have integrated some of these indicators into state programs and how those programs might inform other states within the TCI region. In fact, most of the research conducted for TCI has been focused on measuring policy impacts at the state level, but it is noteworthy that some of the lessons that come out of TCI have informed the content of the Leading Practices Toolkit. For example, one of the primary indicators of interest for the TCI Sustainable Communities Work Group is the Housing and Transportation Affordability Index (HTA). While HTA is a valuable indicator of community sustainability, in its current form it is most appropriately used at the neighborhood or municipal level - not at the state level. Rutgers staff took this information from the scoping papers developed for TCI and included HTA in the toolkit as an indicator for communities.

CONCLUSION

During Phase 1 of the Rutgers Climate Smart Communities leading practices toolkit development the Rutgers team developed a searchable database of leading practices for municipalities to reduce greenhouse gas emissions from the land-use, transportation, green building, housing, infrastructure, and green infrastructure sectors. Within a short timeframe the interface will be fully functional and ready to be piloted with communities as chosen by NYSERDA and NYSDEC. Lessons learned from this first phase of the project will be applied in phase two as Rutgers provides more direct assistance to participants in the Climate Smart Communities program and expands the toolkit to incorporate practices relating to climate change resilience and adaptation.