

Sustainability Goals

The City of Raleigh has embraced sustainability, creating a Sustainability Office in 2008 founded on three fundamental principles: environmental stewardship, economic strength, and social equity.

Since then, Raleigh has undertaken a number of initiatives to reach their sustainability goals, including developing a green workforce, shifting to LED lighting throughout the City and harvesting rainwater at their fire stations for reuse.

It was City Manager Russell Allen who first introduced the BigBelly Solar concept to the City of Raleigh after reading about it in a magazine article. He brought the idea to the Office of Sustainability, who researched the solution and quickly found that it fit in with their energy efficiency and emission reduction goals, while the financial ROI was very promising.

Initial Deployment

Raleigh's initial deployment of the system was in Glenwood South, a popular nightlife area in downtown Raleigh. It was the City's first wide-scale deployment of public space recycling, and all other receptacles were removed from the area to properly test the solution's effectiveness.

The success criteria for this initial deployment were quantifiable cost savings from reduced collection frequency, including fuel, staff hours, equipment usage and street wear-and-tear. The program exceeded initial expectations, receiving a warm welcome from the public.

"From twice daily/seven day a week, pickups are down to as little as once a month," said Jen Baker, Senior Sustainability Technician. "However, perhaps the biggest success has been the public and business-owners' appreciation of the stations and their accompanying *Clean is Green Raleigh* branding campaign."



By The Numbers

hours saved per year
with BigBelly **930**
city
population **416,468**
square
miles **143**

Community Communication

The City used the BigBelly Solar deployment as an opportunity for connecting with citizens about their sustainability program.

"We invited the students to demonstrate the stations and to feed their enthusiasm for innovative environmental technology."

At an unveiling ceremony covered by local print, television and radio outlets, Mayor Nancy McFarlane and Downtown Raleigh Alliance (DRA) Director David Diaz presented the BigBellies to a 5th grade science class from a nearby elementary school. Press representatives didn't need to ask any questions; the students' curiosity and enthusiasm made the event a resounding success.



Additionally, the Office of Sustainability ensured local businessowners were also informed and engaged by hand delivering fact sheets and invitations to the unveiling. Since then, community reaction has been overwhelmingly positive, and Downtown Raleigh Ambassadors continue to answer questions for inquisitive pedestrians.

As this represented the City's first significant foray into public space recycling, the team did their homework at their materials recovery facility on what materials were most often contaminating the recycling stream, and are educating the public with messages on the stations themselves.

Unanticipated Benefits

While the City anticipated that the BigBelly Solar deployment would reduce collection frequency — saving time, money and emissions — they had not fully realized the benefits that come from the additional capacity and enclosed containers.

Before the system was in place, staff spent overtime cleaning up spills from beverages and gathering debris that could not fit in already-full receptacles, but those problems and tasks have been eliminated.

“Sidewalk cafes are especially appreciative that the units are enclosed, minimizing odors and insects.”

Building Consensus

The Office of Sustainability involved stakeholders in the planning process, including government departments — Solid Waste Services, Planning, Urban Design Center, Public Works, Fire, Transportation, Parks & Recreation and Construction Management — and businessowners represented by the Glenwood South Merchants Association and DRA. The latter group was particularly important in this process.

“Those existing relationships allowed us to test the idea and receive positive and negative feedback to shape the program prior to installation, eliminating the potential for a public relations failure from misunderstandings and/or concerns after the fact,” Baker said.



“DRA also encouraged and paid for the development of the *Clean is Green Raleigh* branding campaign, enhancing the stations' visibility and appeal and furthering our recycling success by clearly communicating recycling dos and don'ts.”

“Although a few stakeholders were apprehensive at first, the stations have been universally accepted and are now even requested,” Baker added.

Funding and Expansion

The City of Raleigh leveraged the U.S. Department of Energy's Energy Efficiency and Conservation Block Grant for its initial deployment and have since expanded to several other downtown areas.

As with Glenwood South, the solution is reducing collection frequency and its associated costs and environmental impact. Raleigh is also now piloting stations in several parks and receiving requests for further expansion from citizens and businesses.

