

# Small Steps, Big Strides

**Insights from GreeNYC:  
The City of New York's Behavior  
Change Program**



**SMALL STEPS,  
BIG STRIDES.**



The City of New York  
Mayor Bill de Blasio  
Mayor's Office of Sustainability

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This report was designed by HunterGatherer and Melanie Ho.

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THE CITY OF NEW YORK'S BEHAVIOR CHANGE PROGRAM**



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# Letter from the Director

**SMALL  
STEPS,  
BIG  
STRIDES.**

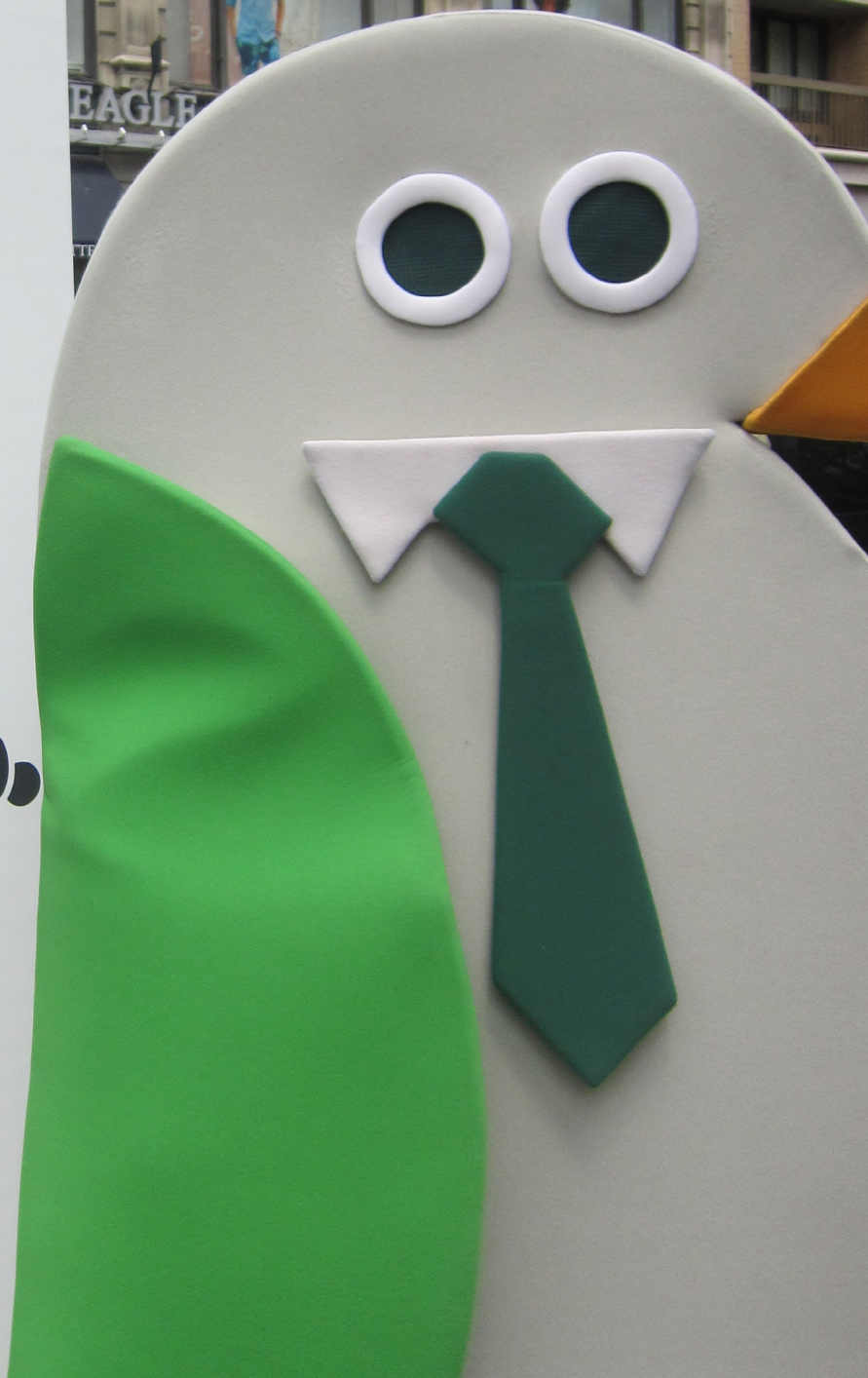


Photo Credit: Stacy Lee



Friends and colleagues,

In the eight years that I have led the GreeNYC program, I have had the opportunity to present GreeNYC's innovative approach to residential behavior change to thousands of you at meetings, conferences, webinars, panels, and other gatherings. Over the course of these interactions, you made me aware of the demand for easily accessible, detailed information on the program's approach and implementation strategies. To that end, we have made an effort to create a centralized document that details and provides deeper insights into GreeNYC's work in the hopes that our experiences can help enhance your own work.

GreeNYC was created to be New York City's public education program to engage and mobilize New Yorkers to take simple yet meaningful steps to reduce their energy use, generate less waste and live more sustainable lifestyles. Through data- and market-driven strategies we have been able to achieve meaningful engagement with New Yorkers and actual, measurable reductions in solid waste and greenhouse gas emissions. GreeNYC as a brand has far surpassed just being—it has become engrained in the fabric of our city. Along the way, our efforts to reduce waste and greenhouse gas emissions have proven that investment in behavior change can strengthen existing policy initiatives and complement them where gaps exist and be high-impact, fast-acting and long-lasting.

We are proud that our work to develop a sophisticated and successful behavior change brand has been recognized and shared around the world as an example of green innovation and hope that this document will allow others to develop strong and effective behavior change initiatives. We will continue to pursue new and interesting ways to connect citizenry and government to sustainability, sharing resources and lessons we learn along the way.

A handwritten signature in blue ink, appearing to be 'Roya Kazemi'.

**Roya Kazemi**

Director, GreeNYC, NYC Mayor's Office of Sustainability

# Introduction



Photo Credit: Jackie Moran



# SMALL STEPS, BIG STRIDES.

Since its inception, GreenNYC has proven one thing: the everyday choices of over eight million people can add up quickly. Opting out of unwanted catalogs, carrying reusable bags or adjusting the thermostat may seem like modest actions, but they have a great impact towards achieving New York City’s ambitious sustainability goals. Yet, can New Yorkers be inspired to take these and other simple, voluntary steps needed to drive positive environmental change?

## **Enter GreeNYC.**

GreeNYC is New York City’s first program dedicated to educating, engaging and mobilizing New Yorkers to help the City of New York (City) meet its ambitious sustainability goals. Created by the Mayor’s Office in 2007, GreeNYC uses a sophisticated, data-driven marketing approach that is deeply informed by Mayor’s Office research, climate psychology and behavioral economics. The program positively engages residents so that they feel inspired and empowered to change behaviors. More specifically, through carefully crafted multimedia resident education campaigns, GreeNYC helps New Yorkers take easy actions with big impacts—both for themselves and for the city as a whole. The message: by reducing energy use, eliminating waste and choosing a more sustainable lifestyle, New Yorkers will make their lives better for themselves and their families, save money and shrink the city’s carbon footprint while contributing to better environmental conditions more broadly.

But GreeNYC has done more than just create a strong approach to engaging residents. The program has carefully crafted multimedia, cross-cutting campaigns that have deeply engaged New Yorkers and partners on a wide range of issues and actions. By taking a marketing-centric approach, GreeNYC has translated this methodology into a brand that is positive, accessible and ultimately effective. The centerpiece of this brand is “Birdie,” an endearing mascot who embodies the program, engaging crowds at city-wide events and starring in all of GreeNYC’s visual materials. He has been featured in campaigns to encourage residents to stop car engine idling, use air conditioners more efficiently in summer months, drink tap water, bike to work, reduce waste, and more. A recent survey found that over half of New Yorkers were familiar with Birdie’s image and with GreeNYC. This is a testament both to the wide appeal of the character and to the

success of GreenNYC in connecting with New Yorkers, a particularly notable achievement given the limited resources of the program and a heavily saturated media market.

Another critical component to the success of GreenNYC initiatives is strategic partnerships with corporations, NGOs, institutions and a diverse range of small businesses. Through a combination of partnerships with external groups and strong brand adoption across multiple City agencies, GreenNYC is able to expand its reach and ability to connect with the public in a systematic way in order to maximize its ability to promote voluntary behavior changes. The result has been New Yorkers reusing more, wasting less, and consuming energy more efficiently.

In order to assess and refine its programming, GreenNYC not only tracks brand and campaign recognition—as measured through traditional indicators of media impressions, audience engagement, and consumer surveys—but it has systems in place to undertake the more difficult task of measuring environmental impacts of program initiatives. Whether it is the 20 million pounds of paper waste reduced from the “Stop Junk Mail” campaign or the more than 300 million plastic bags that did not get consumed when New Yorkers chose to carry reusable bags instead as a result of the “B.Y.O.” campaign, or the double digit increase in the use of energy efficient light bulbs following the “Switch & Save” campaign, GreenNYC campaigns get results. GreenNYC also saves the City and New Yorkers money through the uptick in green behaviors.



Over 40,000 New Yorkers have taken the B.Y.O. Pledge online and at events to reduce plastic consumption by carrying reusables

Photo credit: Roya Kazemi



Photo credit: Melanie Ho

# Sustainability in New York City: Strategies for Success



Photo Credit: Roya Kazemi

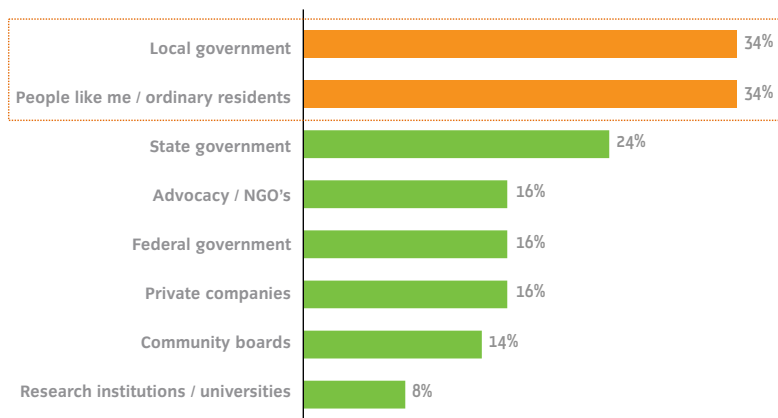
## AN INFORMED AND STRATEGIC APPROACH TO RESIDENT ENGAGEMENT

Climate change is one of the most urgent challenges today. Real solutions will require bold plans and wide participation. In response, New York City has adopted OneNYC, a far-reaching and multi-faceted plan to coordinate the City's approach to mitigating climate change. Along with detailing clear reduction targets for greenhouse gas emissions and waste, the plan also calls for cooperation across all sectors, from government to private businesses to residents. While policy and capital investment are necessary tools to combat climate change, a top-down approach alone is insufficient. Residents must be involved—voluntarily taking actions that improve the strength, vitality and sustainability of the city in which we live. Decisions about consuming and discarding goods, moving around the city, and using energy and water all have tremendous impacts on citywide carbon emissions and environmental quality. Changes by individuals and households also have the potential to be quicker and more cost-effective than policy initiatives. While it could take years to implement a new capital project or pass and implement a law, it only takes months to develop and execute a marketing campaign and seconds for a person to decide to switch off a light or choose to bike to work.

Early on, the City recognized the untapped potential of New York's more than eight million residents to drive positive environmental changes. What was missing was a way to engage them—to mobilize New Yorkers to voluntarily act in ways that would combat climate change. New Yorkers also seemed to sense this. Multiple surveys conducted by the NYC Mayor's Office show that many New Yorkers see themselves and local government as entities most responsible for improving the city's environment. The chart below (Figure 1) illustrates a 2010 study of where New Yorkers believe the responsibility lies when it comes to the environmental health of the city. One third of residents believed that they themselves—and local government—were responsible for improving the overall environment of NYC. The second chart (Figure 2) shows that attitude has only become stronger as time has passed with a 2015 survey showing almost half of New Yorkers feeling self-empowerment and strong expectations from their local government.

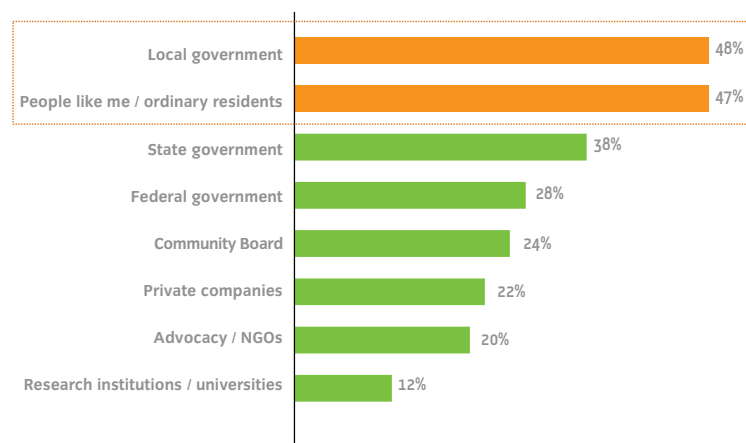
**Figure 1. Environmental Attitudes and Behavior from 2010 Mayor's Office Survey of New Yorkers**

Survey Question: Which of the following have the most potential to help improve the overall quality of the environment in New York City (up to 3 selections)?



**Figure 2. Environmental Attitudes and Behavior from 2015 Mayor's Office Survey of New Yorkers**

Survey Question: Which of the following have the most potential to help improve the overall quality of the environment in New York City (up to 3 selections)?



GreeNYC functions at the intersection of sustainability, local government and resident engagement. Launched in 2007 to serve as the public outreach and marketing arm of then Mayor Michael Bloomberg's sustainability plan, PlaNYC, GreeNYC's enduring mission is to educate, engage and empower residents to make small but impactful changes in their daily activities. This is done through a marketing- and data-driven approach that creates a compelling case for behavior change at the individual level. GreeNYC uses traditional marketing tools of consumer research, audience segmentation, message testing and media planning to develop outreach campaigns but also draws on research from its own studies and behavioral sciences to refine messaging and campaign tactics. This overarching strategy has positioned the program to have strong reception and engagement of its initiatives.

Building on this strong planning foundation, GreeNYC implements action-oriented public education campaigns that are clear, accessible and engaging. Casting aside complex and technical jargon, ideas are distilled into fun and compelling calls to action that cut through the informational clutter of 21<sup>st</sup> century life. Based on extensive research, messages are carefully crafted to trigger motivations (i.e. health benefits or convenience) and address barriers (i.e. uncertainty of what to do or cost) to change behavior.

## BRAND STRATEGY

To better deliver these messages, GreeNYC developed an appealing brand focused on Birdie, a charming mascot who has been the face of the program for a decade. While Birdie is visually appealing, he was (and continues to be) the product of intensive research, careful thought and constant reassessment and refinement.

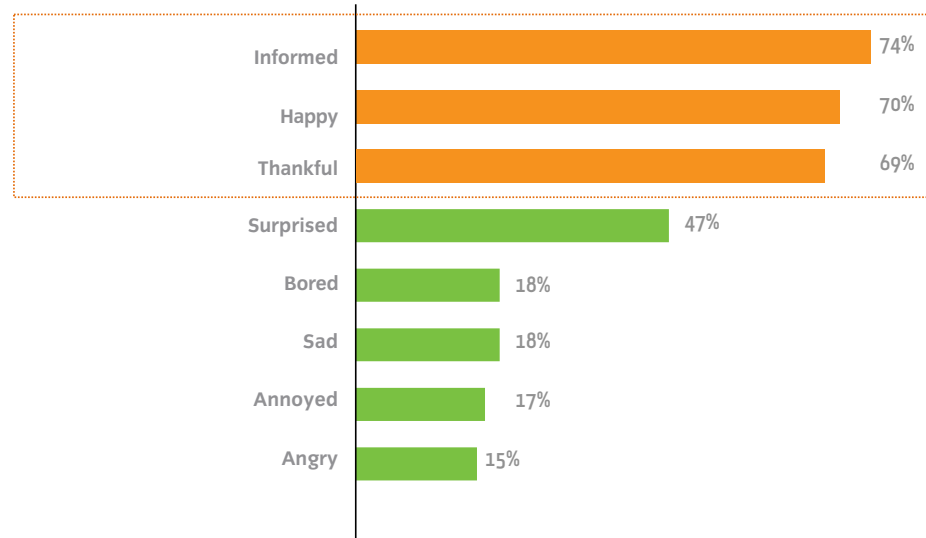
As per GreeNYC's commitment to positive and accessible engagement, Birdie is neither an expert nor a taskmaster. Birdie never talks down to people about why they must bring water bottles or adjust their thermostats. Instead, Birdie is a regular New Yorker gamely taking simple steps to make his life and New York City a bit greener. He is learning what works best, just like anyone else. That wide appeal and resonance with the everyday person is quite intentional. With his oversized eyes, green wing and signature



**HI, MY NAME  
IS BIRDIE.**

Birdie is the face of GreeNYC

Figure 3: Survey Question: How do campaigns make respondents feel?



curves, Birdie was designed to connect with New Yorkers of all stripes, interests and ages. His simple, graphic look shapes our print, event and digital materials – GreeNYC campaigns are lively, bold, clean and easily recognizable. Birdie also drives the tone, allowing the program to be fun, uplifting and sometimes even witty. And New Yorkers have appreciated and engaged with this strategy. In a recent survey of GreeNYC’s “B.Y.O.” campaign, New Yorkers overwhelmingly reported that the campaign made them feel informed, happy and thankful (see Figure 3 above).

Birdie’s engaging style, coupled with bold graphics that play well on screens, has made him the recipient of considerable buzz online. And, like those people, Birdie is active on social media: he tweets about his latest modeling job for the Stop Junk Mail campaign, Instagrams photos from his staycations and takes to Facebook to share his experiences as he works for the City as a mascot and lives and explores it as a New Yorker. Birdie is also a hit at in-person appearances: a sweet-looking, seven foot mascot, the live version of Birdie pops up around the city at official events, greenmarkets, and community events.

## THINGS TO USE, NOT STUFF TO IGNORE

To promote active participation in GreeNYC campaigns, GreeNYC often produces branded objects to foster green behaviors the City is encouraging. The objects are disseminated to New Yorkers through various channels—often at events by Birdie himself. Design and functionality are carefully considered for each object produced, to ensure that they will not be thrown away and end up in the landfill. The program avoids making pamphlets or fliers, which create paper waste and serve no function. Examples of the functional objects created include:

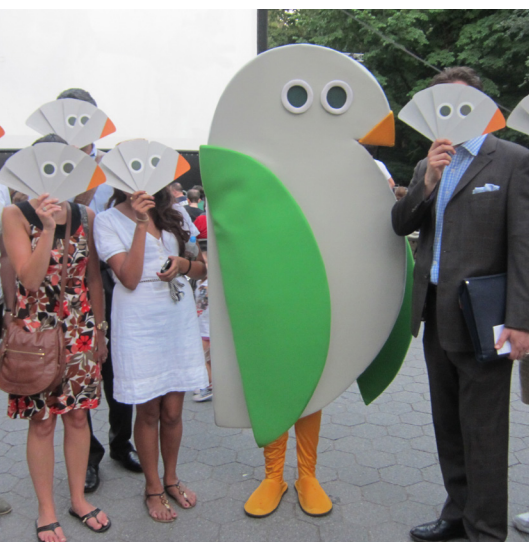
- **Reusable water bottles, mugs and shopping bags:** These have Birdie’s image on them and are given away for free to New Yorkers who sign a pledge either

online or at events to cut down on plastic consumption by carrying reusable items. They were also used as incentives for participation in various online initiatives through Birdie's Facebook and Twitter channels. To date, more than 40,000 New Yorkers have taken the B.Y.O. Pledge.

- **Fans:** GreeNYC created high-quality collapsible and reusable fans that were distributed to New Yorkers during the “Be Cool & Smart” A/C campaign. The fans prompted people to think of greener ways to keep cool in the summer (or see Birdie in themselves).
- **Tree ornaments:** To raise awareness for MulchFest, an annual holiday tree recycling event, GreeNYC develops new paper-based, recyclable ornaments each year that have been distributed to New Yorkers (via Christmas tree vendors at point of purchase) to hang on their trees. Due to the fun design and Birdie's popularity, residents often reuse ornaments year after year.
- **Bike stickers:** GreeNYC printed reflective bicycle “bumper” stickers featuring Birdie wearing a helmet, to encourage New Yorkers to bike more and drive less.
- **Hoodies:** As part of the social media push for GreeNYC's “Stay Cozy” campaign, which targets 1-4 family home owners to take simple steps to weatherize their home and find other ways of staying warm while reducing their energy consumption, hooded sweatshirts were distributed to residents who were able to demonstrate that they took three or more steps to better insulate their homes.

## BIRDIE'S PERSONAL PAGES

When the program set out to build a social media presence for GreeNYC, it was decided to let Birdie do all the talking. Birdie is the face of GreeNYC and a mascot that many



**OUR COZIEST GIVEAWAY YET**

\*while supplies last

1

2

3

**HOW IT WORKS**

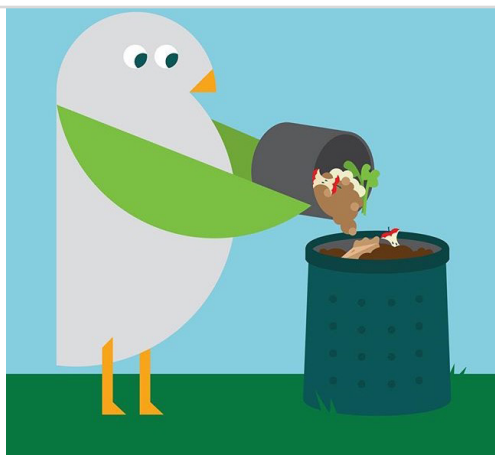
- 1 Post a photo showing us your simple steps
- 2 Follow and tag @Birdie\_NYC
- 3 Use #SimpleStepsGiveaway

All the info: [nyc.gov/giveaway](http://nyc.gov/giveaway)



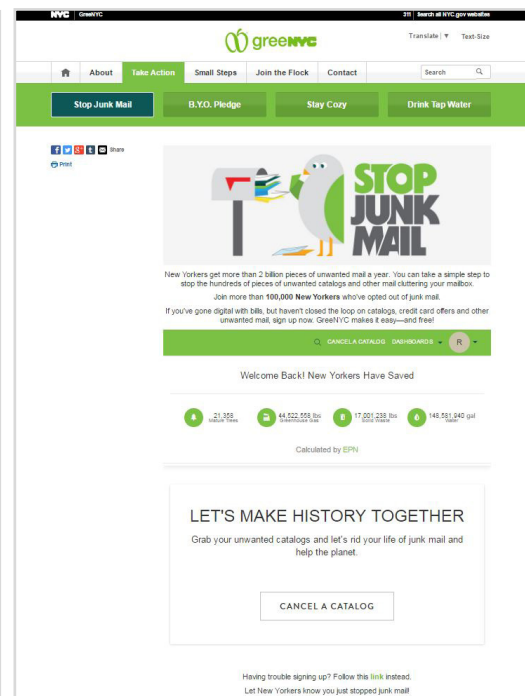
Examples of GreeNYC's Promotional Materials in Action

Photo Credits: Roya Kazemi (L) and Stacy Lee (R)



Liked by [urkahmerika](#), [jacq\\_\\_21](#) and 53 others

**birdie\_nyc** I managed to eat most of my Thanksgiving leftovers (#stuffedbird) but still have some food scraps for the compost bin.



#### Examples of Birdie's online presence

From left to right, post from Birdie's Instagram, post from Birdie's Twitter account, and screenshot of Stop Junk Mail tool on [www.nyc.gov/greenyc](http://www.nyc.gov/greenyc)

New Yorkers have come to love and trust. Therefore, the strategic choice was made to create Facebook, Twitter, Instagram and YouTube accounts for Birdie's "personal use" rather than official brand pages. This felt more authentic, accessible and fun, and gave GreenNYC the liberty to use quirkiness or humor to attract both New York media and New York residents' attention.

The persona for Birdie was developed to be more of a funny friend than a guilt-inducing authority figure. Birdie is an ordinary New Yorker who happens to be a professional mascot for GreenNYC, working 9 to 5 to help make NYC a greener, greater place. He is sometimes irreverent, sometimes clueless, but always sincere in his mission to grow as a bird and do his job to "green" NYC.

## THE GREEN TIPS

GreenNYC's website, [www.nyc.gov/greenyc](http://www.nyc.gov/greenyc), is the hub for all of official tips and tools to support New Yorkers in taking simple steps that have big impacts. This includes our customized Stop Junk Mail tool to give residents a central method for opting out of the over two billion pieces of unwanted catalogs and other mail received annually by New Yorkers.

Within the site is a comprehensive collection of tips that New Yorkers can take to help green NYC – including at home, at work, on the go, and general lifestyle tips. GreenNYC explains all the environmental, economic, and health benefits of adopting various actions.

## LEVERAGING IMPACT THROUGH RELATIONSHIPS

With a small staff and a modest budget, GreeNYC relies on an array of partnerships to maximize its reach and impact. In the last eight years, the program has partnered with private companies like Home Depot and Best Buy, agencies across New York City government, and NGOs like the Environmental Defense Fund. GreeNYC nurtures these partnerships by identifying collaborations that are mutually beneficial and grounded in shared goals. These partnerships undoubtedly strengthen GreeNYC's work. For example, working with Best Buy on the "Save Money" campaign to promote energy efficient air conditioning use, enabled GreeNYC to take its message (and Birdie) inside stores across the city as well as have a strong media presence across the City.

With its popular brand and bold, creative campaigns, GreeNYC has also helped magnify the impact of the efforts of other city agencies to promote sustainability. Each winter, GreeNYC partners with the Department of Parks and Recreation and the Department of Sanitation to promote MulchFest, an annual citywide event where New Yorkers can recycle their holiday trees into mulch at designated NYC parks. While the Parks Department had the programming, infrastructure, budget and media plan in place for this recurring event, they did not have dynamic marketing creative to promote it and encourage New Yorkers to attend. So they partnered with GreeNYC, whose look, feel and brand voice drove outdoor signage, tree ornaments and online promotional materials. Together, GreeNYC and the Parks Department made MulchFest an even greater success.

## GREENYC'S DATA-DRIVEN APPROACH

While GreeNYC's approach is playful at times, it is informed by rigorous research. Data is used to gain a rich understanding of how New Yorkers think about, behave toward and engage with the environment. In 2010, the then Mayor's Office of Long-Term Planning and Sustainability (OLTPS) commissioned research on these areas by hiring the consulting firm Dalberg Global Development Advisors to lead an extensive study. They focused on the following key questions:

- What are the most impactful actions New Yorkers can take to reduce the city's GHG emissions and improve environmental quality?
- What messaging would motivate New Yorkers to take these actions?
- How can GreeNYC assess its effectiveness and measure the contribution of residents toward the City's sustainability goals?

A supporting survey of more than 2,000 New Yorkers provided a valuable glimpse into current environmental behavior and outlined what messages or incentives would motivate residents to do more. These studies yielded a number of important findings that continue to shape GreeNYC's approach, including:



Examples of Partnership with Best Buy and NYC Parks Dept.

Photo credit: Melanie Ho

**New Yorkers understand the importance of environmental problems. They also believe in their own power to solve these problems.**

- Forty-three percent of New Yorkers surveyed reported a high level of concern and a relatively low level of skepticism about environmental problems.
- New Yorkers identify themselves and their local government as the most powerful agents of environmental change.
- New Yorkers already engage in activities to increase energy and transportation efficiency.
- New Yorkers want to do more. They reported a high intention to increase energy efficiency in the home, consume sustainable food, recycle more paper, and purchase gasoline-hybrids or electric vehicles.

**Ten actions that can make a big impact.**

- The study quantified the environmental benefits of more than 200 individual actions—such as recycling more, insulating windows, changing dishwasher settings—and identified those with the greatest potential for helping reduce the city’s greenhouse gas emissions and improving environmental quality.
- The top ten actions based on greenhouse gas reduction impact and likelihood of uptake by NYC residents are:

	Action*	Impact (MtCO <sub>2</sub> e)**
1	Replace conventional gas engine car with a gasoline hybrid	1,189,962
2	Switch to electricity produced from non-fossil fuel or clean sources	859,940
3	Perform a home-energy audit and act on its recommendations	786,346
4	Replace conventional gas engine car with an electric vehicle or plug-in	437,390
5	Weatherize your home	407,929
6	Air dry clothes and use cold water in your dishwasher and washing machine	108,724
7	Replace incandescent bulbs with compact florescent light bulbs (CLFs)	86,737
8	Eat produce in season and purchase it from farmer’s markets, green carts, or coops	50,906
9	In winter, turn down the thermostat 10 degrees when leaving for work and again before bed	11,440
10	Optimize vehicle performance by tuning engine, inflating tires, and using correct motor oil	36,568
	<b>Total</b>	<b>4,005,942</b>
	Percentage of NYC GHG Inventory***	7.5%

\*To ensure consistency in calculation, only actions tested in the consumer survey are included

\*\*Metric Ton Carbon Dioxide Equivalent

\*\*\*Inventory of New York City Greenhouse Gas Emissions 2008 (51.5 CO<sub>2</sub>e)

- Together, these ten actions have the potential to eliminate four million metric tons of CO<sub>2</sub>e and achieve one-quarter of the City's then emissions reduction goal.

### Reducing waste matters.

- The Department of Sanitation collects more than 10,000 tons per day of residential trash. The largest components of this stream are traditional recyclables—metal, glass, plastic and paper (33 percent)—and organics/food waste (31 percent). By engaging in simple actions that reduce paper, textile and food waste, New Yorkers could eliminate over 200,000 tons per year from the waste stream.

### Saving money matters.

- Cost savings were the primary motivation for the majority of actions (especially for those actions relating to energy efficiency).
- Time savings were also a significant motivator.
- Concern for the environment ranked as the second most important motivation and New Yorkers also overwhelmingly agreed that there was a correlation between public health and the environment.

### New Yorkers are a diverse set of individuals with an array of attitudes.

While New York is a city of over eight million distinct individuals, GreeNYC sought to find commonalities and connections to drive its campaigns. Researchers used segmentation analysis to identify common traits and demographics, ultimately identifying five segments of New Yorkers, with varying attitudes toward environmental issues and levels of inclination to engage. They are:

- **Inadvertent Greens**, who have the highest current environmental engagement but lowest intention for future engagement. They tend to be affluent and young or middle-aged.
- **Pragmatic Homeowners**, who are average in current behavior and moderately willing to change. They tend to be older married homeowners living in Queens and Staten Island.
- **Young Urbanites**, who tend to be average in current behavior and report a high willingness to change. They tend to be young apartment dwellers in Manhattan.
- **Aspiring Greens**, who are average in current behavior, but report the highest willingness to change. They tend to be middle-aged and long-time New Yorkers.
- **Skeptics**, who are the least environmentally active, with minimal intention to change. They tend to be younger and renters.

The findings of these studies offer a rare, rich look at urban environmental behavior, motivation, and actions. They also provided an undeniable confirmation of New Yorkers' willingness to make changes that would foster a greener, greater city.

To obtain a PDF of the full behavioral impact study, *New Yorkers' Contributions to a Greener, Greater City: A Behavioral Impact Study*, visit [www.nyc.gov/sustainability](http://www.nyc.gov/sustainability).

## **NEW YORKERS' CONTRIBUTIONS TO A GREENER, GREATER CITY: A BEHAVIORAL IMPACT STUDY**



The City of New York  
NYC Mayor's Office

# High Impact Sectors for Behavior Change



Photo Credit: Erika Lindsey

Understanding residents and targeting the most potentially impactful actions in the right way with the right audiences has been crucial to GreenNYC's success. GreenNYC highlights steps that are easy to undertake and have great impact—both on individual and citywide levels. By identifying the highest-impact actions New Yorkers can take to reduce greenhouse gas emissions and improve environmental quality, GreenNYC is able to focus on the most effective and immediate solutions. Through GreenNYC's research, described in the preceding section, four sustainability sectors emerged as targets for high-impact resident engagement: waste, energy, air quality and transportation. These groupings also dovetail with the goals set out in the OneNYC plan, providing an essential set of metrics for GreenNYC's efforts.

## I. WASTE REDUCTION

### **Goal for 2030: Zero waste to landfills, reduce waste disposal by 90 percent**

Every year, New Yorkers generate more than six million tons of waste and recyclables at home, school, work, and in commercial establishments. This waste has real consequences and is hard on the environment. All told, the collection, processing, disposal, and decomposition of New York City's solid waste generates more than two million metric tons of CO<sub>2</sub> each year, which is four percent of the citywide total. Disposing of residential waste also costs more than New Yorkers \$350 million per year in taxes.

The most effective way to minimize the impacts of solid waste is to reduce the amount of waste generated. Both the Department of Sanitation (DSNY) and the Office of Recycling Outreach and Education (OROE) have programs to encourage individuals to adopt waste prevention practices, and promote opportunities for businesses, institutions, and individuals to reuse materials.

Perhaps more than any other sustainability sector, the power to reduce waste lies in the hands of city residents. Engaging New Yorkers to adopt waste-reducing behaviors is critical—these actions benefit the environment and also the individual, as cutting down on waste can help New Yorkers save money and eliminate clutter.

## II. ENERGY EFFICIENCY

### **Goal for 2050: Reduce the City's greenhouse gas emissions by 80 percent**

Energy efficiency plays a crucial role in greening New York City and 34 percent of greenhouse gas emissions come from energy used in residential homes in New York City. Many energy codes do not address residential buildings, so a significant portion of emissions are not covered by existing mandates. Thus, meeting the City's emissions reduction goals requires residents voluntarily conserving energy.

Using data analysis, GreenNYC identified the highest impact actions New Yorkers can

take to lower residential energy use. Based on the existing carbon footprint of the city, further research quantified the potential impact of over 200 actions to identify those that have the highest potential impact. Ranking individual actions according to their potential cumulative impact and based on citywide goals provided a quantitative framework for GreenNYC to determine the focus of public outreach campaigns.

Motivation was also assessed, and cost was a critical factor. Cost savings has been a top motivator for New Yorkers to take energy-saving action when using lights, dishwashers, air conditioners, heating, and other household appliances.

### III. AIR QUALITY

**Goal for 2030: New York City has the cleanest air quality of any large city in the U.S.**

New York City's air quality has dramatically improved over the last several decades. Most recently, since 2007, the city has reduced soot pollution by almost 25 percent thanks to a combination of local actions, state and federal programs, and a gradually greening power sector.

Still, continuing to improve air quality is critical, not just for lowering emissions but also for protecting public health. Each year, air pollution in New York City causes more than 3,000 deaths, 2,000 hospital admissions for lung and heart conditions, and approximately 6,000 emergency room visits for asthma in children and adults. The biggest known polluting sources include motor vehicle exhaust, building heating oil, and aging power plants with outdated technology.

Once again, while policies and capital investments have brought significant progress, improving air quality further requires individual action—especially in a city the size of New York. Voluntary behavior changes such as not idling in a car or riding a bike to work can lower particulate matter emissions and improve the air for all New Yorkers. Engaging residents has been a vital, necessary strategy to meet these challenges—and to reach the ambitious goal of achieving the cleanest air quality of any large city in the U.S.

### IV. TRANSPORTATION

**Goal for 2050: Reduce the City's greenhouse gas emissions by 80 percent**

Greenhouse gas emissions are inextricably connected to how people travel. According to the most recent *Inventory of NYC Greenhouse Gas Emissions*, transportation accounts for roughly 20 percent of citywide emissions.

New York City's transportation network—including roads, bridges, tunnels, subways, commuter rails, buses, taxis, sidewalks, airports, train stations, and ferries—moves more people and goods than any other system in the country. While the system performs remarkably well considering traffic volume, significant challenges like growing congestion,

aging infrastructure, and the environmental impact of transit-related greenhouse gas emissions are still present.

Progress has already been made. Through innovative strategies, the City has strengthened and expanded transportation choices, while also making environmentally sustainable options more appealing to residents, commuters, and tourists alike. Still, policy can only go so far to shape behaviors. There are significant barriers to changing transportation habits. Cost, safety and feasibility can stand in the way of someone riding a bike to work or choosing to buy an electric car. Habit or lack of awareness of negative impacts can perpetuate idling. This is where positive engagement, and GreeNYC, have been able to help.

# GreenNYC Campaigns



Photo Credit: Melanie Ho

At the heart of GreeNYC is the notion that small, individual actions add up. The countless choices that more than eight million New Yorkers make every day matter and can play an integral role in lowering the City's overall impact on the environment. GreeNYC aims to change New Yorkers' public perception of sustainability over time and change behavior in the short term. By adopting small and relatively easy green behaviors now, people often experience a shift in self-perception. Over time, they may begin to identify as someone who is environmentally conscious and be more willing to adopt more complex green behaviors later on. Through a combination of digital media, paid advertisements, City-owned media assets, strategic partnerships with public and private entities, and events and community engagement, GreeNYC is able to reach select and broad audiences with tailored messaging. As a result of continuous marketing campaigns the GreeNYC brand is now well-ingrained into the city's consciousness and landscape.

## CAMPAIGNS IN DEPTH (A SELECTION)

### "Bring Your Own" or B.Y.O.

**The Problem:** Every year, New York City produces over 14 million tons of waste including waste from 10 billion disposable bags and 1 billion single use bottles of water. In addition to littering NYC neighborhoods and streets and sewers and clogging up landfills, these disposable items deplete natural resources and contribute to the city's overall greenhouse gas emissions.

**The Opportunity:** It is easy, and more cost-effective, to bring reusable bags, reusable coffee mugs, and water bottles.

**The Campaign:** GreeNYC created a public outreach campaign, titled "Bring Your Own" or "B.Y.O." to encourage New Yorkers to use their own reusable mugs, bags and bottles instead of their disposable counterparts.



Examples of Media from GreeNYC's B.Y.O. Campaign

Photo credit: Roya Kazemi

GreeNYC took this a step further, creating a campaign that encouraged New Yorkers to bring reusables with them on their commutes and adventures in the city. Partnerships again played a key part in extending the campaign's reach. GreeNYC joined forces with City agencies, including DSNY and Department of Environmental Protection (DEP), GrowNYC, an environmental non-profit that runs many of New York City's green markets, and local businesses to maximize the campaign's breadth and impressions. It also took a multimedia approach to spreading the word by launching the B.Y.O. awareness campaign through bus, subway and digital ads, in radio public service announcements and on billboards and sanitation trucks. Starring Birdie, the ads were designed to remind and motivate New Yorkers to carry reusables. In an effort to be more hands-on, GreeNYC often set up tables at green markets and at special events around the city to solicit New Yorkers to sign a pledge to cut down their use of plastic. As added incentive, free reusable bottles, mugs and totes, featuring Birdie, were handed out to anyone who signed the pledge at events or online. Over 40,000 New Yorkers have taken the B.Y.O. pledge.

The B.Y.O. campaign was well-received, understood and appreciated by New Yorkers. Awareness of the logos, recall of B.Y.O. messaging, and all posters significantly increased. Respondents reported having positive feelings toward the campaign—it increased their sense of responsibility for reducing waste.

The campaign also positively influenced the behavior and intentions of New Yorkers. According to research, over half the respondents reported carrying a reusable bottle (55 percent), followed by a shopping bag (45 percent), and then a mug (37 percent). The campaign also:

- Increased the average self-reported frequency of carrying a reusable bag in a week (from two to four times);
- Made New Yorkers more aware that they are forgetting to carry shopping bags and water bottles;
- Increased the frequency of recycling purchased plastic water bottles by 28 percentage points;
- Got New Yorkers thinking about reusable containers and the waste created by disposables;
- Avoided use of over 300 million plastic bags.

While the environment still ranks relatively low compared to security-related issues, such as housing, crime, and unemployment, New Yorkers' attitudes about waste seem to be changing. A recent Mayor's Office survey found that nearly 50 percent of New Yorkers strongly believe that waste is a growing problem in NYC; that disposables create a lot of waste (46 percent); that they are concerned about this issue (42 percent) and that prevention is best method (38 percent).

These attitudes suggest that reusable shopping bags and reusable bottles are the greatest opportunity to reduce waste as there is less resistance to using these items com-

pared to reusable mugs. Forgetting to carry reusable shopping bags and water bottles is the most common reason for not using these items.

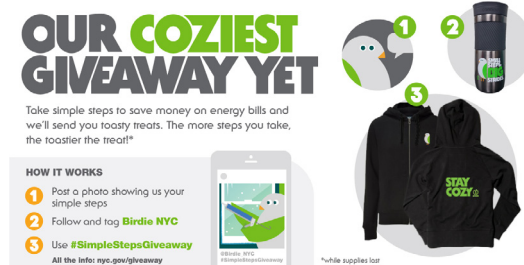
There are still real opportunities to increase how frequently New Yorkers carry reusable items. GreenNYC continues to work to close the gap between intention and action by implementing additional phases of B.Y.O. outreach, further increasing the frequency which New Yorkers carry reusables.

### “Stay Cozy” - Weatherizing Homes

**The Problem:** During winter months, poorly insulated buildings waste energy and leech savings. In fact, the average New York family spends \$2,400 per year on home energy bills, with heating and cooling accounting for more than half of that cost. Of the heating and cooling expenses, up to a third is spent on energy that is lost from poor insulation.

**The Opportunity:** Insulating and sealing leaks are easy ways for New Yorkers to warm up while saving money. New Yorkers can stay warm, save money, and help reduce carbon emissions by weatherproofing their homes. Simple fixes such as sealing leaks around doors and windows; insulating attics, basements and garages; replacing air filters and lowering water temperature can mean cozier homes and big savings.

**The Campaign:** GreenNYC took a multi-media approach to target 1-4 family home owners through digital, radio, and out-of-home media including billboards, commuter rail, bus and subway ads. Barriers to weatherization include high costs, perceived inconvenience, and insufficient knowledge of the economic and environmental benefits. GreenNYC’s media strategy, artwork and messaging for the Winterization campaign strategically targeted each of these barriers by emphasizing economic savings, ease of making improvements, and increased comfort. As part of the campaign, GreenNYC developed a social media promotion where New Yorkers were challenged to take three simple steps to keep heat from escaping their apartments and homes. While savings was a key motivator, GreenNYC used enticing giveaways (free hoodies and travel mugs), as well as social confirmation (via “shout outs” from Birdie on Facebook, Twitter and



Examples of Marketing from GreenNYC’s Stay Cozy Campaign

Photo credit: Roya Kazemi

Instagram) to encourage participation. In addition, participants were also encouraged to share their actions—a viral component of the campaign. Through all platforms the campaign generated about half a billion media impressions.

An online survey of New Yorkers was administered to assess home weatherization actions that residents may have taken or intend to take before the next winter. Research also assessed awareness of GreeNYC and the weatherization campaign, as well as recall of placement campaign messages. Half of the respondents took steps to weatherize their homes, and the campaign target audience was more likely to say they had taken measures to weatherize their homes than the non-target audience. Saving money proved to be the top reason for weatherizing the home, followed by personal comfort and being good for the environment. The top two weatherization steps taken by the campaign target were ensuring windows and doors create a strong seal and keeping furniture away from vents. 20 percent of respondents said that the top barrier to weatherizing their home is the cost, and 16 percent said they do not know how to weatherize. Thus, future campaigns will focus on low cost steps and highlight very specific steps to weatherize homes.

The top three places people recall seeing these messages about weatherizing were on the side of an MTA bus, on Facebook and on a subway platform. These were followed by inside an MTA bus, inside a subway car, and on billboards.

Over four in ten respondents said the campaign gave them the impression that home weatherization can help save money and made them feel that they and others have a responsibility to help conserve energy. However, many did not believe that the campaign gave the impression that weatherizing a home is easy. Thus, future campaigns will emphasize easy steps for home weatherization.

### “Turn It Off”

**The Problem:** Since the 1970s, New York City has prohibited drivers from engine idling for more than three minutes. However, logistics makes the law difficult to enforce. Police officers cannot monitor all streets at all times, nor can they wait to see if drivers discontinue idling after three minutes, as the law states.

**The Opportunity:** There are multiple appealing reasons to take the simple step of turning off an engine: easing negative effects on health, preventing fuel waste, avoiding fines, and reducing pernicious impacts on our environment.

**The Campaign:** GreeNYC partnered with the Environmental Defense Fund, EcoDriving, and the NYC Department of Transportation to launch a public outreach campaign titled “Turn it Off.” Through a multi-faceted campaign, GreeNYC targeted both local New York City drivers and commuters into Manhattan from the outer boroughs and the Tri-State region by strategically placing public service announcements. The announcements were comprised of messages explaining the legal, health, financial, and environmental consequences of vehicle idling.

The multi-media campaign was a successful combination of paid media and applying free and existing assets in creative ways. GreeNYC was able to maximize exposure, and create 250 million impressions.



Examples of GreeNYC's Anti-idling Campaign

Photo credit: Stacy Lee



**Stop Junk Mail Sign-up Event at Union Square and Stop Junk Mail tool from GreeNYC's website**

Photo Credit: Aaron Lewis

The campaign proved effective in filling the gap in policy enforcement. In addition to reminding New Yorkers not to idle, bumper stickers and ads encouraged drivers to report instances of idling by calling 311 (the City's non-emergency hotline). As a result, the City saw a 111 percent increase in calls related to idling during and following the campaign.

### **"Stop Junk Mail"**

**The Problem:** New Yorkers generate more than 2.5 million tons of paper waste each year, representing over 30 percent of New York City's residential waste stream.

**The Opportunity:** Provide residents with a simple and effective way to opt-out of receiving the over two billion pieces of unwanted catalogs and other mail that New Yorkers receive annually.

**The Campaign:** GreeNYC partnered with Catalog Choice to create a free and easy on-line tool New Yorkers can use to cancel unwanted junk mail "subscriptions."

GreeNYC aimed to reach as many New Yorkers as possible for this campaign. Nearly everyone is receptive to the idea of stopping unwanted junk mail, particularly New York residents who often have limited personal space. Removing perceived barriers and turning will into action were key challenges. Many people do not know how to stop junk mail subscriptions or perceive the process to be tedious.

With a limited media budget for the "Stop Junk Mail" campaign, GreeNYC took a resourceful approach that relied on partnerships, creativity, strategic media placements and careful timing. The program timed digital media buys, email blasts, tabling events, social media content, and out-of-home ads to launch just before the holiday season, when catalogs, coupons and other unwanted promotional mail tend to pile up in New Yorkers' homes and apartments.

Since the "Stop Junk Mail" campaign launched in fall 2012, New Yorkers have opted out of over 1.2 million mailings, resulting in a cumulative reduction of over 20 million pounds of paper waste.

# Looking Toward the Future



Photo Credit: Dan Lieberman

Over the last eight years, GreeNYC has pioneered a data-driven approach to public education that is coupled with the successful GreeNYC brand and strategy. While this has enabled the City to effectively engage New Yorkers in taking on actions that have had significant impacts on the environment, arguably one of the most important contributions GreeNYC has made to the City's sustainability efforts thus far is underscoring the idea that New Yorkers' actions can help realize policy goals or potentially address gaps in existing policy until these are filled.

GreeNYC will continue to share its strategies, successes and challenges with partners across the urban sustainability landscape in the hopes of elevating collective efforts and learning from each other's experiences. Of course, every city is different—location, population, size, governance, infrastructure, and drivers of greenhouse gas emissions are all very real factors that vary from one context to the next. However, all cities face an ever-pressing need to become more sustainable. All have the same valuable assets: their residents. Like other cities across the country, New York City is striving to be greener. To that end, the City has adopted numerous policies and has made great capital investments to help enable these changes. But, one thing has been clear throughout GreeNYC's extensive research and aggressive campaigns: residents are critical to effective, large-scale environmental solutions. Whatever the city's population, residents can and must be willing to be mobilized to take steps to change behaviors. GreeNYC's power lies in its ability to effectively engage New York residents and its success is bolstered by the fact that it has created a culture of voluntary behavior change that fills policy gaps, is more cost-effective and faster than traditional mandates, and encourages innovation and ownership. It is a successful model that can be adapted and replicated to help create more livable and sustainable cities everywhere.



Photo Credit: Roya Kazemi



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