



## NYC Carbon Challenge for Hotels Program Design

### Overview

#### Background

On Earth Day 2015, New York City Mayor Bill de Blasio announced *One New York: The Plan for a Strong and Just City*, a groundbreaking effort to address New York City's long-term challenges: the forecast of 9 million residents by 2040, changing climate conditions, an evolving economy, and aging infrastructure. *OneNYC* represents a unified vision for a sustainable, resilient, and equitable city, and charts the path to collectively achieving this goal.

Recognizing the existential threat that climate change poses to New York City and the world, Mayor Bill de Blasio has set the ambitious goal to reduce citywide greenhouse gas (GHG) emissions 80 percent below 2005 levels by 2050. As part of the "80 x 50" goal, the City has set interim targets to reduce citywide GHG emissions 40% by 2030 and building-based GHG emissions by 30% by 2025. With Mayor de Blasio's commitment, New York City became the largest city in the world to commit to an 80 x 50 goal and reaffirmed its continued leadership in addressing global climate change.

The GHG emissions from energy used in New York City's one million buildings represents 71% of citywide emissions, and at least 80 percent of the buildings that exist today will still be here in 2050. This means that improving the energy efficiency of the city's existing building stock represents the greatest opportunity to reduce citywide GHG emissions. To put New York City on a pathway towards the 80 x 50 goal, the City has released a 10-year plan called *One City: Built to Last—Transforming New York City's Buildings for a Low Carbon Future* to address the energy used in our buildings.

Started in 2007, the NYC Carbon Challenge is a voluntary leadership program for 17 of New York City's leading universities, the 11 largest hospital organizations, 11 global companies, and 18 residential management firms that have pledged to voluntarily reduce their building-based emissions by 30 - 50 percent in ten years. The program builds on a strong partnership between the City and the private and institutional sectors to pave a pathway towards New York City's 80 x 50 goal.

Hotels now have the opportunity to join these leaders in the NYC Carbon Challenge. For more information about the NYC Carbon Challenge, please visit [www.nyc.gov/carbonchallenges](http://www.nyc.gov/carbonchallenges).

This document details the program design for the NYC Carbon Challenge for Hotels.



## **The Challenge**

The NYC Mayor's Office of Sustainability ("Mayor's Office") invites New York City's leading hotels to commit to voluntarily reducing the GHG emissions intensity of their buildings, measured as carbon dioxide equivalent per gross square foot or per occupied room, by 30 - 50% in ten years.

## **Benefits of the Challenge**

The NYC Carbon Challenge ("Challenge") offers hotels the opportunity to demonstrate leadership in energy efficiency and sustainability and be recognized by the Mayor's Office for these efforts. The Challenge will continue to inspire environmental action throughout the hotel industry by highlighting the energy efficiency work within some of New York City's most visible and frequented buildings. By participating in the Challenge, New York City hotels can demonstrate a localized commitment to sustainability and GHG reductions. Additionally, participating hotels have access to a diverse forum of peers, industry experts, and organizations that will provide contacts, best practices, technical assistance, and simple tools to help them realize continued reductions in energy use, costs, and GHG emissions.

## **Structure of the Program**

Participation in the NYC Carbon Challenge for Hotels consists of the following (described in detail later in the document):

- 1. Choose Participation Strategy:** Dependent upon the organizational structure of each hotel, the three entities that can commit to the Challenge are the hotel corporation, owner, or management company. These entities will become the "Challenge participants." The Mayor's Office will work individually with each participant to determine the appropriate parties that need to commit to the Challenge. Challenge participants can commit individual hotels or a group of hotels as part of a Challenge portfolio. Challenge participants are permitted to have overlapping hotels within their Challenge portfolios.
- 2. Choose a Challenge Goal:** Each Challenge participant will be responsible for selecting a carbon reduction goal (the "Challenge goal") for individual hotels or their Challenge portfolio. Participants have the option to select a base year of 2012 or later for the 30% Challenge goal, 2009 or later for the 40% Challenge goal, or 2005 or later for the 50% Challenge goal.
- 3. Accept the Challenge:** To accept the Challenge for a hotel, each Challenge participant must submit a commitment letter to the Mayor's Office signed by an employee with authority to commit to the Challenge. Each Challenge participant must also submit separate hotel participation letters for the individual hotels or portfolios of hotels that will join the Challenge, which may be required to be co-signed by hotel corporations,



owners, or management companies. The Mayor's Office will work individually with each participant to determine the appropriate entities to submit hotel participation letters.

- 4. Track Carbon Emissions.** For each participating hotel, the hotel corporation, owner, or management company will submit annual NYC Local Law 84 (LL84) energy use benchmarking data. In cases where there is more than one Challenge participant for a single hotel, the Mayor's Office will work individually with each participant to determine the appropriate entity to submit LL84 data. To accurately measure energy consumption, Challenge participants must collect whole-building data for electricity, steam, and natural gas use as well as heating fuel oil purchases for each hotel in the Challenge.
- 5. Create a GHG Reduction Strategy:** For each participating hotel, the Challenge participant will report a GHG reduction strategy to achieve the Challenge goal bi-annually using a standard template provided by the Mayor's Office. In cases where there is more than one Challenge participant for a hotel, the Mayor's Office will work individually with each participant to determine the appropriate entity to submit a GHG reduction strategy.
- 6. Regular Partner Meetings.** The Mayor's Office will organize regular meetings with participating hotels to provide updates, feature guest speakers of interest, and encourage the exchange of ideas and best practices. At least one representative for each Challenge participant should attend each meeting.
- 7. Working Groups.** The Mayor's Office will convene voluntary working groups as needed to help develop new initiatives and/or to resolve issues as they arise.
- 8. Annual One-on-One Meetings.** The Mayor's Office staff and the Challenge participants will meet one a year to review the participant's progress, consider any obstacles to achieving reductions, and discuss a strategy to reach the carbon reduction goal.
- 9. Access to Resources and Technical Expertise.** The Mayor's Office will provide direct access to staff and information to connect participants with financial incentive programs, industry experts, other peers and City agencies.
- 10. Promotion and Recognition.** The Mayor's Office will provide promotion and recognition of participating hotels, including press conferences, news releases, social media outreach, and information posted on the NYC Mayor's Office of Sustainability website.

### **Completing the Challenge**

To complete the NYC Carbon Challenge for Hotels, each Challenge participant must document achievement of their selected Challenge goal from each individual hotel or across their



Challenge portfolio, subject to verification by the Mayor's Office. There are no punitive repercussions for not meeting the Challenge goal.

## Details of the Program

### 1. Choose Participation Strategy

Dependent upon the organizational structure of each hotel, the three entities that can commit to the Challenge are the hotel corporation, owner, or management company. These entities will become the "Challenge participants." The Mayor's Office will work individually with each participant to determine the appropriate entities that need to commit to the Challenge, which will be based on decision-making authority related to capital investments and operational control of hotel assets. Challenge participants can commit individual hotels or a group of hotels as part of a Challenge portfolio. Challenge participants are permitted to have overlapping hotels within their Challenge portfolios. Examples of Challenge participants include:

- **Hotel Corporation.** Enterprise that operates a portfolio of hotel brands by owning, managing, and/or franchising hotels.
- **Hotel Owner.** Independent owner, partnership, or Real Estate Investment Trust (REIT) that owns hotel's physical assets.
- **Hotel Management Company.** Third-party firm that manages the operations of franchised hotels that are separately owned.

### 2. Choose a Challenge Goal

Challenge participants will be responsible for selecting a carbon reduction goal (the "Challenge goal") of 30%, 40%, or 50% from their selected base year. Participants may select either individual hotels to participate in the Challenge (the "Individual Approach") or a group of hotels to participate as part of a Challenge portfolio (the "Portfolio Approach").

- **The 30% Challenge.** To meet the 30% Challenge goal, a participant must reduce their GHG emissions, measured in terms of emissions of carbon dioxide equivalent per gross square foot (CO<sub>2</sub>e/sq ft) *or* carbon dioxide equivalent per occupied room (CO<sub>2</sub>e/OR), by 30% from a base year of 2012 or later within ten years of their start year in the Challenge.
- **The 40% Challenge.** If a participant has achieved significant reductions in GHG emissions since 2009 and would like these reductions to count toward the Challenge, the participant can choose to reduce CO<sub>2</sub>e/sq ft *or* CO<sub>2</sub>e/OR by 40% from a base year of 2009 or later within ten years of their start year in the Challenge.



- **The 50% Challenge.** If a participant has achieved significant reductions in GHG emissions since 2005 and would like these reductions to count toward the Challenge, the participant can choose to reduce CO<sub>2</sub>e/sq ft or CO<sub>2</sub>e/OR by 50% from a base year of 2005 or later within ten years of their start year in the Challenge.
- **Individual Hotel Approach.** Challenge participants who select individual hotels to participate in the Challenge must reduce CO<sub>2</sub>e/sq ft or CO<sub>2</sub>e/OR by 30%, 40%, or 50% from each individual hotel.
- **Portfolio Approach.** Challenge participants that choose to select a group of hotels to participate as part of a Challenge portfolio may reduce CO<sub>2</sub>e/sq ft or CO<sub>2</sub>e/OR by 30%, 40%, or 50% from across a selected portfolio of hotels. This option provides greater flexibility in achieving the Challenge goal from multiple hotels.

### 3. Accept the NYC Carbon Challenge

To accept the Challenge, each Challenge participant must submit both a commitment letter and separate hotel participation letters to the NYC Mayor's Office.

- **Commitment Letter.** The commitment letter confirms a Challenge participant's commitment to the Challenge, their selected approach (Individual Hotel Approach vs. Portfolio Approach), selected Challenge goal (30%, 40%, or 50%), and an optional list of potential participating hotels. The commitment letter must be signed by an employee who has the authority to commit to the Challenge.
- **Hotel Participation Letter.** After the commitment letter is submitted, Challenge participants must coordinate with all relevant entities to select hotels to participate in the Challenge and submit separate hotel participation letters for these individual hotels or groups of hotels. These letters may be required to be co-signed by the hotel corporations, owners, or management companies who own or play a decision-making role in the operations of the hotel.

If the Challenge participant both owns and manages a participating hotel, the participant can submit the hotel participation letter. Hotel participation letters will typically be required to be co-signed when a third party owns or manages a hotel. Examples of scenarios that will require co-signed hotel participation letters may include, but are not limited to:

- **Hotel Corporations with Franchised Hotels.** Hotel corporations that franchise the ownership of their hotels and employ third-party management must secure co-signed hotel participation letters from both the relevant hotel owners and the management companies.

- **Hotel Owners that Employ Third-Party Management.** Hotel owners that employ third-party management for their hotels must secure co-signed hotel participation letters from the relevant management companies.
- **Hotel Management Companies with Third-Party Ownership.** Hotel management companies that do not own some or all of the hotels they manage must secure co-signed hotel participation letters from the hotel owners.

#### 4. Tracking Carbon Emissions

Challenge participants agree to track and report all energy use and associated GHG emissions annually for each participating hotel. For hotels over 50,000 square feet, Challenge participants may track emissions by complying with Local Law 84 of 2009 (LL84), which requires entering annual energy and water use information into the US Environmental Protection Agency (EPA) Portfolio Manager tool. The Mayor's Office will work individually with each hotel to determine the appropriate entity to report emissions for the Challenge, although it is anticipated that the management company will typically be the responsible entity.

- **Carbon Emissions Inventory.** Challenge participants will submit an annual carbon emissions inventory via a web-based NYC Carbon Challenge Reporting Tool platform. To do so, participants may share their LL84 benchmarking data or enter relevant data through the US EPA Portfolio Manager tool. Challenge participants will also be required to review data quality annually using a simple data quality guide provided by the Mayor's Office.
- **Accounting for Overlapping Hotels:** If participants have overlapping hotels within their Challenge portfolios, they are each permitted to take credit for the GHG reductions from the overlapping hotels, if both parties agree. Below are two common examples:
  - **Franchised hotels.** A hotel corporation may have franchised hotels participating in the Challenge that overlap with hotels in an owner or management companies' Challenge portfolio. All entities may count the GHG reductions from these hotels toward their individual Challenge goals.
  - **Owned hotels.** A management company may include hotels they manage in their Challenge portfolio that overlap with hotels included in a hotel owner's Challenge portfolio. Both participants may count the GHG reductions from these hotels toward their individual Challenge goals.
- **Adding Hotels to the Challenge.** Challenge participants may add a hotel to the Challenge provided that all relevant entities sign a participation letter and receive



approval from the Mayor's Office. If a participant wishes to add the hotel to a Challenge portfolio, the hotel's energy use and square footage or number of occupied rooms will be added to the carbon emissions inventory in the participant's selected base year or year that the participant began to own and/or manage the hotel, whichever is later.

- **Removing Hotels from the Challenge.** Challenge participants are permitted to remove hotels from their portfolio over a ten-year timeframe if the participant no longer owns or manages the hotel.
  - **Keeping Buildings that Change Owner/Management Company.** If a hotel changes ownership and/or management and the Challenge participant(s) responsible for this hotel would like to count reductions already achieved toward the Challenge goal, the most recent CO<sub>2</sub>e/sq ft or CO<sub>2</sub>e/OR for the hotel will be held constant within the carbon emissions inventory for the remaining years of the Challenge.
  - **Removing Buildings that Change Owner/Management Company.** If a hotel changes ownership and/or management and the Challenge participant(s) responsible for this hotel would like to remove this property from its Challenge portfolio, the CO<sub>2</sub>e/sq ft or CO<sub>2</sub>e/OR for this hotel will be removed from the carbon emissions inventory from the hotel's selected base year.
- **Data and Disclosure.** All building-based energy use and associated emissions data will be received and kept confidentially by the Mayor's Office. Any disclosed information will be anonymized and/or aggregated, unless a participant gives explicit approval to the Mayor's Office to release their data. When a Challenge participant reaches the Challenge goal, the Mayor's Office will assist with promotion of this progress.

### **Methodology for the Carbon Emissions Inventory**

Challenge participants will aggregate the whole building energy use annually by fuel type and amount for all hotels participating in the Challenge. Participants will share building-based energy use data for each participating hotel with the City through the US Environmental Protection Agency (US EPA) Portfolio Manager account. The NYC Carbon Challenge Reporting Tool will automatically apply carbon coefficients, held constant at 2005 levels, to each fuel type and divide this value by the chosen normalization factor to find carbon emissions per gross square foot (CO<sub>2</sub>e/sq ft) or per occupied room CO<sub>2</sub>e/OR).



- **Base Year.** Each participant can choose a base year after 2012 for the 30% reduction goal, after 2009 for the 40% reduction goal, and after 2005 for the 50% reduction goal.
- **Start Year.** The start year of the Challenge is the first calendar year that the Challenge participant accepts the Challenge.
- **End Year.** The end year is ten years from the start year of the Challenge. To meet the Challenge goal, participating entity must achieve their Challenge goal by December 31 of that year.
- **Calendar Year.** Energy use information for all carbon emissions inventories must be aggregated on a calendar year basis (January 1 – December 31).
- **Fuel Types.** All Challenge participants measure whole-building energy use by fuel type and amount. Energy use is reported using the following metrics:
  1. Electricity: Kilowatt-Hours (kWh)
  2. Natural gas: Thermal Units (Therms)
  3. Heating oil distillates No. 2, No. 4 and No. 6: US Gallons (US Gal)
  4. District Steam: Thousand Pounds (Mlbs)
  5. Propane or other fuels used for backup generation: US Gallons (US Gal)
- **Carbon Emissions.** The Challenge uses carbon dioxide equivalent per gross square foot (CO<sub>2</sub>e/sq ft) or per occupied room (CO<sub>2</sub>e/OR) as metrics to track emissions. Measuring emissions per square foot or per occupied room standardizes emissions level for hotels of different sizes and uses.
  - **Carbon Dioxide Equivalent (CO<sub>2</sub>e).** The level of carbon dioxide (CO<sub>2</sub>) that would have the same climate impact as a given concentration and type of greenhouse gas.
  - **Commercial Leased Space.** If the hotel has separately-metered commercially leased spaces, they may be excluded from reported energy use since the Challenge participant does not have direct control over energy consumption in these spaces. Commercial leased spaces can include shops, restaurants, or other retail businesses.
  - **Private Space.** If a hotel has separately-metered private space, it may be excluded from reported energy use. A private space can be defined as areas which are not accessible to hotel guests or conference attendees, including private residential apartments and on-site staff accommodation. However,



“back of house” areas such as kitchens and public spaces such as courtyards are not considered private space. For more information, see the International Tourism Partnership’s Hotel Carbon Measurement Initiative’s definition of private space.

- **Gross Square Feet (sq ft).** The total number of square feet measured between the exterior surfaces of the enclosing fixed walls of all of the Challenge participant’s buildings. This includes spaces such as vent shafts, stairs, basements, etc. This does not include commercial leased spaces and private space that the hotel owner does not have direct control over its energy consumption.
- **Occupied Room (OR).** The total number of rooms that were occupied by guests over the reporting year. No-shows are not included in the occupied room count, but complimentary rooms that were occupied but not paid for are included. For more information, see the International Tourism Partnership’s Hotel Carbon Measurement Initiative’s definition of an occupied room.
- **Carbon Coefficients.** A carbon coefficient determines the level of carbon dioxide equivalent (CO<sub>2</sub>e) associated with a given amount of fuel or energy use. All carbon coefficients for the NYC Carbon Challenge were developed by the Mayor’s Office and are in compliance with the 2012 United States Community Protocol for Accounting and Reporting Greenhouse Gas Emissions.
  - **Electricity and Steam.** The NYC Carbon Challenge uses New York City-specific carbon coefficients for electricity and steam, held constant at 2005 levels. Because the coefficients for electricity and steam can vary significantly across years, holding the coefficients constant at 2005 levels ensures that Challenge participants receive credit for their efforts, and not for exogenous changes to the supply.
  - **Natural Gas, Propane, and No. 2, No. 4, and No. 6 Heating Oils.** The NYC Carbon Challenge uses the nation-wide carbon coefficient for natural gas, propane, and No. 2, No. 4, and No. 6 heating oils, which were developed by the US EPA.

## 5. Create a GHG Reduction Strategy

Each Challenge participant is required to develop a GHG reduction strategy in the form of a Climate Action Plan and update it bi-annually. The Mayor’s Office will work collaboratively with the participants to develop a Climate Action Plan template. The Climate Action Plan



will be updated bi-annually. All Climate Action Plans will be received and kept confidentially by the Mayor's Office.

- The Climate Action Plan may include:
  - Background information about the Challenge participant's hotels
  - An overview of results from the Challenge participant's carbon emissions inventory
  - A plan that includes a description of progress made toward the Challenge goal and the strategy for achieving remaining reductions

#### **6. Regular Partner Meetings**

The Mayor's Office will organize regular partner meetings, typically held on a quarterly basis. At least one representative from each participating hotel should plan to attend each meeting. Meetings will include, but are not limited to:

- An update from the Mayor's Office staff
- Presentations by Challenge participants
- Presentations by technical experts and guest speakers of interest
- Open discussion

#### **7. Working Groups**

The Mayor's Office will organize volunteer working groups of Challenge participants to discuss and develop solutions to any additional issues as they arise. These working groups will be convened on an as-needed basis.

#### **8. Annual One-on-One Meetings**

Annual one-on-one meetings will be held by the Mayor's Office of Sustainability between each Challenge partner and Mayor's Office staff. Meetings will cover:

- Background information about the Challenge partner and major changes to their hotel portfolio.
- Current progress toward the Challenge goal.
- Status of deliverables to Mayor's Office, including the Climate Action Plan and annual updates to the Carbon Emissions Inventory.
- Strategy moving forward, any issues or complications to achieving the goal, and potential solutions to help achieve success.

#### **9. Access to Resources and Technical Expertise**

The Mayor's Office will provide direct access to staff and information to connect participants with financial incentive programs, industry experts, other peers and city agencies.

#### **10. Promotion and Recognition**



The Mayor's Office will recognize the efforts and achievements of participating entities and their hotels. Promotion and recognition will include, but is not limited to:

- Press announcements from the Mayor's Office
- Placement of news articles and other earned media highlighting the success of Challenge participants
- Individually tailored Mayor's Office of Sustainability and GreenNYC promotional materials
- Inclusion of hotel name, logo, and profiles on official NYC documents, website, and social media outlets
- The ability to self-promote participation in the Challenge, including the use of the NYC Carbon Challenge logo on vetted documents, collateral, web pages, social media, or other informative media