

dc smarter business challenge pilot summary

OCTOBER 2013

INTRODUCTION

The District Department of the Environment and the DowntownDC Business Improvement District (BID) partnered to pilot the 2013 DC Smarter Business Challenge (Challenge) in the DowntownDC ecoDistrict (ecoDistrict) as part of the implementation of business outreach in the Mayor's 2013 Sustainable DC Plan. The Challenge provides recognition to businesses for improvements in their building performance through smarter resource management. The Challenge also facilitates networking among building management professionals to share their experiences in trying to achieve higher levels of performance across the areas of energy, water, waste, tenant engagement and transportation. Information provided by Challenge participants in the building survey provide valuable feedback to DC government on program improvements needed to reach the ambitious goals of the Sustainable DC Plan.

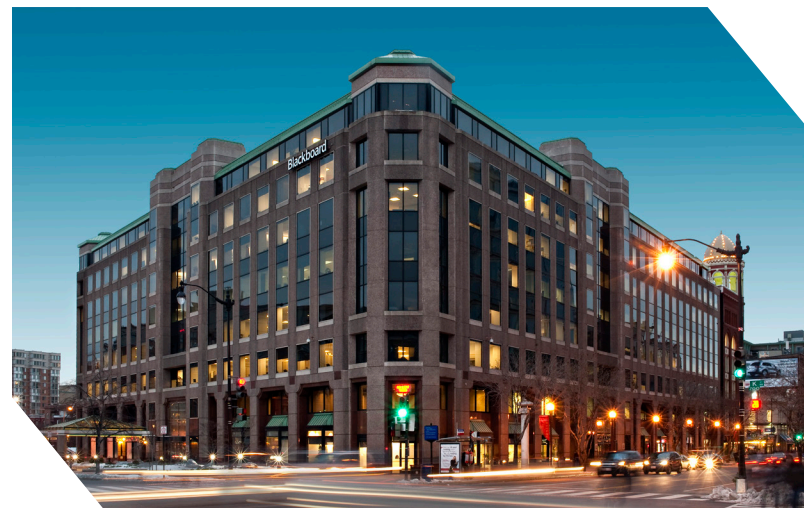
Many Downtown office buildings are already participating in certification programs, such as LEED-EB, and challenges, such as the EPA's National Building Challenge, and are required by District law to benchmark their energy and water consumption using Energy Star portfolio manager. Participation in these related programs are supported and encouraged by the Challenge through working groups and technical briefings organized by the BID.

CHALLENGE PARTICIPATION

Participation in the Challenge was open to any DC building, both privately and publicly owned. Nineteen companies expressed an interest in participation by registering 114 buildings. Out of those potential participants, sixteen companies completed the Challenge for 57 buildings, the majority of which were located in the DowntownDC ecoDistrict (35).

PARTICIPATING COMPANIES

- Akridge
- American Public Health Association
- American Society of Landscape Architects
- Boston Properties
- Brookfield Office Properties
- Cassidy Turley
- Cushman & Wakefield
- District of Columbia Department of General Services
- Hines
- Hotel Monaco
- Institute for Market Transformation
- The JBG Companies
- OTJ Architects
- Shorenstein
- The Tower Companies
- Transwestern



650 Massachusetts Avenue, a Brookfield Office Property, was one of 35 Challenge participating buildings located in the DowntownDC ecoDistrict.

PARTICIPATING BUILDING STATISTICS

DowntownDC ecoDistrict:

- 35 buildings
- 11,301,493 square-feet

Citywide:

- 22 buildings
- 6,326,340 square-feet



Georgetown University School of Continuing Studies - Urban and Regional Planning was one of twenty-four partners that contributed to the pilot's success.

- Georgetown University School of Continuing Studies- Urban and Regional Planning
- Great Forest Sustainability Solutions
- goDCgo
- Healthy Buildings
- Institute for Local Self-Reliance
- National Building Museum
- Redline Gastrolounge
- Resource Strategies
- The Shakespeare Theatre Company
- Sustainable DC
- Triologue Studio
- ULI Greenprint Center for Building Performance
- U.S. Department of Energy
- U.S. Green Building Council- National Capital Region

CHALLENGE BENEFITS

The value proposition for participating companies in the DC Smarter Business Challenge is recognition for their sustainability efforts and access to tools and opportunities that will help them in those efforts. The ecoDistrict published the Building: Help and Resources Guide that listed over fifty sources of technical assistance for building management and their tenants.

In addition to the Guide, the ecoDistrict made seven educational and networking sessions available to Challenge participants in the course of the year. The ecoDistrict sponsored three energy management best practices sessions presented by its energy ally, CorAdvisors. Three working sessions were organized to explore new ways to achieve greater accountability in waste management practices. Challenge partner Healthy Buildings Inc. conducted a briefing on indoor air quality challenges in office buildings.

CHALLENGE PARTNERS

The Downtown ecoDistrict and DDOE reached out to a broad range of government and private sector entities to provide the tools and opportunities to connect building management professionals with their peers as well as technical experts. These twenty-four Challenge partners contributed to the pilot's success:

- APPI Energy
- Busboys and Poets
- Casey Trees
- CorAdvisors
- DC PACE
- District Department of the Environment
- District of Columbia Department of Public Works
- The DC Sustainable Energy Utility
- Eco-Coach
- Energy Smart DC

CHALLENGE SURVEY RESULTS

The Challenge survey asked participants 25 questions regarding their current understanding of sustainability programs in the city and to identify what is being implemented in the buildings they manage and own. The following analysis is the summary of the responses provided.

GENERAL

Multiple DC government program opportunities exist to engage the large office building market in the development and implementation of the vision and goals of the District's Sustainable DC plan. These opportunities span a broad spectrum of activity included in the Sustainable DC Plan, from DC Department of Consumer and Regulatory Affairs' green code education programs to the District Department of Transportation's goDCgo employer engagement. LEED-Existing Building (EB) adoption by the DC market is driving much of the green building activity and investment, as buildings seek certification to maintain market status and relevance.

SURVEY HIGHLIGHTS:

More than 50% of participants have earned or registered for LEED Existing Building (EB) certification

RECOMMENDATIONS

- Customize Sustainable DC engagement to large commercial users
- Strengthen linkages between the Challenge and achieving LEED EB certification

TENANT ENGAGEMENT

Assistance with tenant engagement emerged as a primary need of participants and potential benefit of participation in the DC Smarter Business Challenge. The plans are to expand the Challenge city-wide in 2014 utilizing a new tenant engagement platform that was piloted in Chicago in 2013.

SURVEY HIGHLIGHTS

- 52 of 57 conducted occupant surveys
- 48 of 57 organized green teams
- 52 of 57 promote annual events
- 19 of 57 utilize green leasing



Better coordination of Bike-to-Work Day is one of many recommendations of the Challenge survey.

RECOMMENDATIONS

- Coordinate participation in Earth Day, Bike-to-work Day, America Recycles Day, Car Free Day, and other activities
- Develop and promote resources and programs that target the adoption of LEED-CI and green leasing for tenant build-outs

ENERGY

Challenge participants are some of the most energy efficient, well maintained, smart buildings in the city and the country. They are constantly exploring new methods, technologies, and software systems that can improve efficiencies and their understanding of building functions and interactions.

Participants are being recognized as national leaders through EPA Energy Star awards, DOE Better Building Challenge Participation and as Green Power Partners. However, there are additional opportunities for visibility through case studies about the leadership exhibited by Challenge participants.

DC SEU, DC PACE and solar incentives have been greatly underutilized by participants. While there does exist a full palette of energy finance options, no single entity is focused on identifying efficiency opportunities, getting deals financed, and utilizing incentives to achieve maximum results.

RECOMMENDATIONS

- Provide greater recognition for achievements as DOE “Showcase Projects”
- Improve data acquisition and reporting of market conditions and activity
- Coordinate project identification, financing, and incentive utilization
- Explore Demand Response potentials for reliability and price control impacts

SURVEY HIGHLIGHTS:

- 32 of 57 Energy Star labeled:
- 49 of 57 Energy Control Measure plans
- 44 of 57 Advanced Building Management Systems
- Estimated energy reduction of participants 2010-2012: 7%

WASTE

Adapting facility waste management operations to meet the evolving measurement and verification needs for LEED, GHG, and product lifecycle reporting is a major challenge. The priority has been “get it off site ASAP”, now waste, recycling, grease, paper, and organics are all commodities with different tipping fee structures and containers. Today’s hauler needs to be able to provide accurate

detailed reports about the weights and measures from each building they service in order to meet the multiple reporting requirements.

SURVEY HIGHLIGHTS:

- 100% use of green cleaning services
- 50 of 57 planning for waste audit in 2013 or 2014
- Diverse assortment of haulers and containers utilized

RECOMMENDATIONS

- Conduct facility waste management educational workshops
- Identify waste audit fields required by for reporting compliance
- Identify tools and “best practices” required to provide accurate measurements
- Convene DowntownDC ecoDistrict waste management working group

WATER MANAGEMENT

Water conservation and storm water management activities at existing buildings will become more of a priority. The fee structures and applicable offsets have been determined by DDOE and DC Water that can now be used to calculate lifecycle costs for green roof and other storm water retention systems. Existing systems can now be certified and traded as part of the new Storm Water Credit trading program.

The inclusions of water use in the DC benchmarking requirements for large offices ensures that baseline measurement is occurring for all building over 50,000 square feet. However, Challenge participants are already identify opportunities for reduction through equipment and operational changes by measuring at the source; ie cooling towers, lavatories, and outside hoses.

SURVEY HIGHLIGHTS:

- 5 green roofs, with 51,057 square feet of space, 4 more under consideration.
- 53 of 57 are implementing water conservation measures



Green roofs are calculated into the fee structures and applicable offsets that have been determined by DDOE and DC Water.

RECOMMENDATIONS

- Develop the full business case for investment in storm water management features using existing participant examples.
- Analyze water usage and poll participants regarding effective measures and challenges.
- Coordinate information and contacts for participants that are planning installations of green roofs in 2014.

TRANSPORTATION

LEED EB certification and recertification requires periodic surveying of tenant transit patterns by property management. Gift cards, prizes, and other incentives are used to try to garner participation and response with limited success. However, goDCgo provides survey services as a component of their contract with local governments to work with employers to maximize transit utilization by connecting them to programs and services that can save them money and improve the access for their occupants. The shared value of working together has made goDCgo the most active program partner of the Challenge.

SURVEY HIGHLIGHTS:

- 31 of 57 surveying tenant travel patterns
- 10 EV charging stations
- 7 prioritized hybrid parking

RECOMMENDATIONS

- Connect goDCgo to property management and ownership interests
- Work with USGBC-NCR and goDCgo to align transportation surveys
- Highlight and recognize exemplary bicycle storage and accompanying facilities.

The value proposition for participating companies in the DC Smarter Business Challenge was recognition for their sustainability efforts and access to tools and opportunities that helped them in those efforts.

THE CHALLENGE FUTURE

The completion of the 2013 Smarter Business Challenge Pilot provided a proof of concept that there is a robust interest among building companies in DC to use this approach to help accelerate their sustainability efforts. The DowntownDC ecoDistrict and DDOE are looking forward to incorporating building tenants fully into the challenge and leverage the shared interests between tenants and building managers for better building performance.



Challenge participants indicated the installation of ten EV charging stations on their properties.

thank you to our participants!

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- Boston Properties
- Brookfield Office Properties
- Cassidy Turley
- The JBG Companies
- OTJ Architects
- The Tower Companies
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