



VORNADO
REALTY TRUST

SUSTAINABILITY 2011

Sustainability at Vornado Realty Trust

At Vornado, we believe that environmental sustainability is not only responsible citizenry, it is also good business. Our goal is to further our leadership in sustainability through continued focus on energy efficiency, environmental stewardship, resource reduction and ongoing improvements to our buildings' infrastructure, operations and tenant engagement.

Since 2008, we have successfully integrated sustainability into our core operating practices by organizing teams within each division and within each building who identify and implement cost-effective opportunities to reduce our carbon footprint.

In 2011, our efforts were realized through the following awards and recognitions:

- Over 22 million square feet (SF) of EPA-designated ENERGY STAR buildings
- Over 19 million SF of LEED EB (Existing Buildings)
- Nearly 2 million SF of LEED NC or CS (New Construction or Core & Shell)
- Over 2.5 million SF of LEED CI (Commercial Interiors) tenant spaces
- NAREIT Leader in the Light Gold Award (highest level award, second year running)
- Ranked Top 5 by the Global Real Estate Sustainability Benchmark (GRESB) among U.S. REITs
- BOMA New York Pinnacle Earth Award (One Penn Plaza)

Policy

Vornado's corporate policy/commitment to sustainable practices in several key areas is summarized below.

DEVELOPMENT

In all new development and redevelopment projects, Vornado strives to achieve LEED NC/ CS Gold certification or better.

EXISTING BUILDINGS

A successful sustainability program in an existing building is a synergy of its infrastructure, operations and tenant engagement. Using this three-pronged focus, Vornado works to improve efficiencies and establish environmentally friendly best practices at each property. Our operations teams implement energy efficiency, resource conservation, ecologically sensitive products, and other sustainable practices in all possible locations. Capital upgrades and renovations incorporate sustainable materials, equipment, and technologies wherever feasible and practicable. Qualified existing buildings are certified under the LEED EB rating system.

CULTURE/OFFICE MANAGEMENT

Vornado encourages a sustainability-minded culture in every division and at every level, with focus on the following categories:

- Employee training and education
- Indoor air quality monitoring and remediation
- Resource conservation (water, energy, materials)
- Responsible procurement (ecologically sensitive materials/vendors)
- Transportation (mass transit and alternative commuting, electric vehicle (EV) charging stations)
- Waste reduction (recycling)

STRATEGIC APPLICATION OF SUSTAINABLE PRACTICES

With nearly 100 million SF of space nationwide, Vornado can leverage the scale and diversity of our portfolio, as well as the depth and breadth of our operational expertise across all divisions. We test promising sustainable technologies at selected sites, and roll them out at additional

properties based on their success. Using this approach, Vornado benefits from innovative products, services, and ideas that offer the broadest possible value to our Company, our customers, our industry, our communities, and the environment.

RELATIONSHIPS

Vornado integrates sustainable practices and thinking into our relationships with tenants, contractors and consultants. We incorporate sustainable standards into our contractual documents and agreements wherever possible. We remain actively involved with local and national lawmakers to help influence the shaping of sustainability policy in real estate.

Energy Efficiency and Management

In 2011, Vornado established a dedicated Energy Efficiency Capex fund to invest in building retrofits to improve the operating efficiency of our building stock. We identified energy saving opportunities across our portfolios based on data collected from completed audits and retro-commissioning reports as well as our engineering teams. Our projects call for investment which qualifies for available rebates and incentives, while offering short term paybacks and significant reductions in energy consumption. These projects will be measured and verified using our proprietary advanced metering and energy management software systems to calculate payback and justify future investment.

Energy efficiency starts at home, and Vornado is pleased to announce that we recently completed a LED lighting retrofit in our corporate headquarters at 888 Seventh Avenue that resulted in a 30% decrease in our baseline energy consumption. We are working to replicate this program in common areas at other properties. Vornado also engaged site-level employees in energy efficiency by challenging them to accomplish a 10% year-over-year reduction in energy consumption. Four of our largest assets in New York were able to exceed this goal, reducing thousands of tons of carbon emissions and saving over \$500,000 annually. Also of note in 2011, Vornado Retail successfully implemented several parking lot lighting retrofit projects across our retail portfolio.



Tenant Service Center

In general, our managers and engineers continue to utilize sophisticated building management systems and technology to manage and mitigate energy consumption throughout our portfolio. Many Vornado properties also participate in demand response programs. In 2011, Vornado properties helped to curtail over 12 MW of power during peak demand periods when the electricity grid was strained. While we continue to enhance our energy management capabilities through new metering and technology, our Tenant Service Center and Energy Information Portal™ are industry-leading amenities, demonstrating our commitment to energy efficiency and reduction.

Tenant Service Center:

Vornado developed and operates the Tenant Service Center (TSC) - one of the largest and most sophisticated energy management and building systems control centers in the United States—designed to commission, monitor and regulate power consumption in over 20.5 million SF of Vornado owned and managed properties in the Washington, DC area. At the TSC, over 80 buildings are remotely monitored and controlled around the clock by licensed engineers who track building performance by monitoring different sensors in every building.

Energy Information Portal:

In a typical Vornado building, the tenants account for up to 70% of energy consumption. Educating the tenant base is the key to long lasting success in our sustainability efforts. In 2009, Vornado's New York office division launched the trademarked Energy Information Portal (EIP™) as a tool to provide tenants with real-time monitoring of their energy consumption. Collecting pulse output readings from its 3,000 submeters across the portfolio, the EIP displays consumption to tenants and building operators in graph and table format, enabling them to see the success of their energy reduction activity – and the associated cost savings – on a real-time basis.

Onsite Generation and EV Stations

Cogeneration (also known as combined heat and power, CHP) is the use of a heat engine or a power station to simultaneously generate both electricity and useful heat. It is one of the most common forms of energy recycling. The advantages of on-site cogeneration in the commercial office setting are compelling. CHP enables the delivery of power with increased efficiency and a lower carbon footprint, as well as the ability to provide back-up power to tenants while relieving utility grid constraints.

Our 6.2 MW project at One Penn Plaza in New York commenced operation in 2010. It provides up to 60% of the building's electricity and offsets up to 30% of the building's steam requirement, making it one of the largest existing Cogen projects to be integrated into an existing New York City office building.

In 2011, Vornado Retail initiated commercial operation of our first solar project, a 980 kilowatt project at Bergen Town Center in New Jersey. Today, the solar panels generate enough electricity to supply common area needs at the property – pulling the usage entirely “off the grid.”

Also in 2011, Vornado's Washington DC Office division installed and commissioned ten electric vehicle charging stations across the greater DC Metro area, including Arlington County, Fairfax County and downtown Washington, DC. The introduction of electric vehicle charging stations help to support the emerging EV market in the region. For 2012, we have leased 2 electric Chevy Volts for use by our employees (particularly our leasing team) to help reduce our carbon footprint and lower our transportation costs.

Vornado continues to investigate further opportunities to implement on-site generation and charging stations across our portfolio.



Cogeneration Plant at One Penn Plaza



*Detail of Solar Panel Installation
at Bergen Town Center consisting
of over 4000 panels*



Green Cleaning

Maintaining a clean building environment is critical to employee health and the environment. "Green" cleaning standards combine cleaning best practices with the use of low environmental impact products to ensure a high degree of sustainability. Building Maintenance Services (BMS) LLC, cleans and maintains our buildings using a LEED-Standard green cleaning program, with a focus on:

- Employee training and education
- Energy conservation
- Indoor air quality
- Resource conservation
- Responsible procurement and low environmental-impact product lines
- Waste reduction
- Water conservation



Recycling & Reclamation

Recycling and reclamation programs are essential to providing a sustainably built environment. By preventing the waste of potentially useful materials and reducing the consumption of fresh raw materials, recycling and reclamation projects help to reduce systemic energy usage and reduce the need for conventional waste disposal.



11 Penn Lobby Detail

Vornado is committed to supporting the recycling of materials and diversion of waste away from landfills, wherever possible. This includes everyday waste produced in a building (trash, paper waste, food waste) as well as construction waste and debris. Our goal is to maximize and optimize our diversion ratio of waste, and ensure that such materials can be diverted away from landfill to separation and recycling facilities.

In the fourth quarter of 2011, Vornado commenced capital improvements in New York at 11 Penn Plaza and 595 Madison Avenue, two 1920s vintage buildings with original period details and ornamentation. Vornado's operations team was able to reclaim pieces of rare Botticino marble from old corridors in each building to construct new security desks in the building lobbies. The projects successfully yielded cost savings and reduced carbon footprints, while delivering a finished product that seamlessly matches the existing design.



595 Madison Avenue Historic Elevator Doors

LEED

Developed by the U.S. Green Building Council (USGBC), the LEED (Leadership in Energy and Environmental Design) rating system provides building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

Vornado's commitment to LEED encompasses the full range of programs, space and construction types, from LEED NC (New Construction), to LEED EB (Existing Buildings), to LEED CI (Commercial Interiors).

Since our first LEED-EB Certification with the Merchandise Mart in Chicago (Silver, 2007), Vornado's LEED pursuits have evolved to encompass over **19 million SF of LEED EB** certified office buildings in our portfolio, **nearly 2 million SF of LEED NC/CS** and nearly **2.5 million SF of LEED CI** certified tenant spaces.

Select 2011 highlights include:

Vornado became the first REIT to register for the USGBC's **LEED EB Volume Program**. Through this program, Vornado's Washington DC Office division is positioned to certify an additional 25 buildings in 2012. Through these and other certifications in 2012, we anticipate our total LEED square footage to increase to over 27 million SF by the end of 2012.

Vornado is the only REIT currently involved in the USGBC's LEED Portfolio Pilot Program.

To learn more about LEED, visit www.usgbc.org





West End 25, New LEED Gold Property



Education and Outreach

Understanding sustainability, efficiency and environmental stewardship is a key part of maintaining a high performance building. At Vornado, we offer regular educational sessions for our property managers and engineers to help them stay up to date on the latest sustainability and LEED principles.

Engaging our tenants in our sustainability effort has also been a critical component in making our programs effective. Tenant outreach/engagement is recognized by the USGBC as an essential component of LEED Certification. Our award winning communications program (including our website, quarterly newsletters, and email announcements) has helped make tenants aware of our progress, engaged tenant activity, and resulted in LEED innovation points towards property certification. Most importantly our outreach has helped to build strong landlord-tenant energy reduction partnerships, and our sustainability support has led to over 2.5 million SF of LEED CI space throughout our portfolio.

Celebrating Earth Day
April 22nd 2012

Vornado invites you to contribute to our **e-waste recycling program**
Monday, April 23rd - Friday, April 27th

We encourage you to bring small personal electronic devices to the lobby bins such as **cell phones, cameras or laptops.**

Tenant Outreach



New electric Chevy Volts for DC Leasing Team

VORNADO SUSTAINABILITY
 ENVIRONMENTAL PUBLICATION

CONGRATULATIONS!
 Vornado Realty Trust recently announced the addition of 18 million square feet to LEED® Certified portfolio with over 5.6 million square feet of LEED® Silver Certified properties. Below are the properties certified in 2011.

SUSTAINABLE PEOPLE: VARNADO'S LEADERSHIP IN DIVERSITY
 The iconic building of New York City is now 50 years old, and has undergone significant work with a complete mechanical plant. The building's sustainable greenery plan, completed in 2009, is now being expanded with an "all of building" approach to sustainability. The plan will include an urban farm for over 100,000 pounds of fresh produce each year, as well as a green roof, solar panels, and other sustainable features. The building's greenery plan is a key component of Vornado's commitment to sustainability and environmental stewardship.

2011 FIGHT FOR AIR CLIMB! AMERICAN LUNG ASSOCIATION ONE PIEN PLAZA
 Vornado Realty Trust is proud to have been named a 2011 FIGHT FOR AIR CLIMB! award winner. The award recognizes the building's commitment to sustainability and environmental stewardship. The building's greenery plan is a key component of Vornado's commitment to sustainability and environmental stewardship.

REGENERATIVE NETWORKS FALL 2011 FORUM 888 SEVENTH AVENUE
 Vornado Realty Trust is proud to have been named a 2011 REGENERATIVE NETWORKS award winner. The award recognizes the building's commitment to sustainability and environmental stewardship. The building's greenery plan is a key component of Vornado's commitment to sustainability and environmental stewardship.

LEED-GOLD FOR COMMERCIAL INTERIORS 888 SEVENTH AVENUE
 Vornado Realty Trust is proud to have been named a 2011 LEED-GOLD FOR COMMERCIAL INTERIORS award winner. The award recognizes the building's commitment to sustainability and environmental stewardship. The building's greenery plan is a key component of Vornado's commitment to sustainability and environmental stewardship.

Sustainability & Research Institute
 Vornado Realty Trust is proud to have been named a 2011 Sustainability & Research Institute award winner. The award recognizes the building's commitment to sustainability and environmental stewardship. The building's greenery plan is a key component of Vornado's commitment to sustainability and environmental stewardship.

Sustainability Newsletters

Arlington Green Games

In 2011, Vornado's Washington, DC Office division enrolled 20 buildings in the Arlington Green Games, a year-long competition developed by Arlington County focused on reducing energy, waste and water usage in commercial office buildings. By recruiting over 50 businesses, agencies and organizations in our portfolio to participate in the Green Games, Vornado not only demonstrated our commitment to operate our buildings in a sustainable manner and to support our tenants in their sustainability initiatives, but we were the most successful participant, winning twenty awards.

Strategic Partnerships and Corporate Involvement

Our sustainability team is actively involved in the following pilot programs and industry groups to help guide and develop new guidelines related to energy and sustainability issues.

- Portfolio Pilot Program and LEED EB Volume program with the U.S. Green Buildings Council (USGBC)
- Demonstration Project with Natural Resources Defense Council (NRDC) and Clinton Climate Initiative
- Integrated Energy Management Plan (IEMP) in Crystal City with Arlington County and Washington Gas
- The Real Estate Roundtable Sustainability Policy Action Committee (SPAC)
- Mayor's Office of Long Term Planning (NYC) Advisory Committee and REBNY Sustainability Committee
- Arlington County Community Energy and Sustainability Task Force
- Founding group of the USGBC/ICSC/RILA Retail Sustainability Committee
- General Services Administration (GSA) Green Building Advisory Committee, which was created as a result of the Energy Independence and Security Act (EISA)



Vornado led tour of the Cogeneration Plant for the Urban Land Institute (ULI)

*1290 Avenue of the Americas,
a LEED Silver Property*



ENERGY STAR Partner

As an ENERGY STAR Corporate Partner, Vornado is committed not only to optimizing our energy efficiency and energy management efforts, but to using our business platforms to help educate our tenants, clients and customers about ENERGY STAR programs.

Benchmarking energy usage is the keystone to any effective energy efficiency and management program, and Vornado utilizes the ENERGY STAR Portfolio Manager Program to benchmark and monitor the efficiency of our buildings. ENERGY STAR is a joint program of the U.S. EPA and the U.S. Department of Energy focused on promoting energy efficiency. For commercial buildings, the ENERGY STAR program scores the energy performance of buildings on a 1-100 scale. Facilities that achieve a score of 75 or higher are eligible for the ENERGY STAR award, indicating that they are among the top 25% of facilities in the country for energy performance. We are proud that over 22 million SF of buildings in our office portfolio scored higher than 75 and have achieved the prestigious ENERGY STAR label, and benchmark our progress year-over-year to add to our growing list of ENERGY STAR labeled properties.

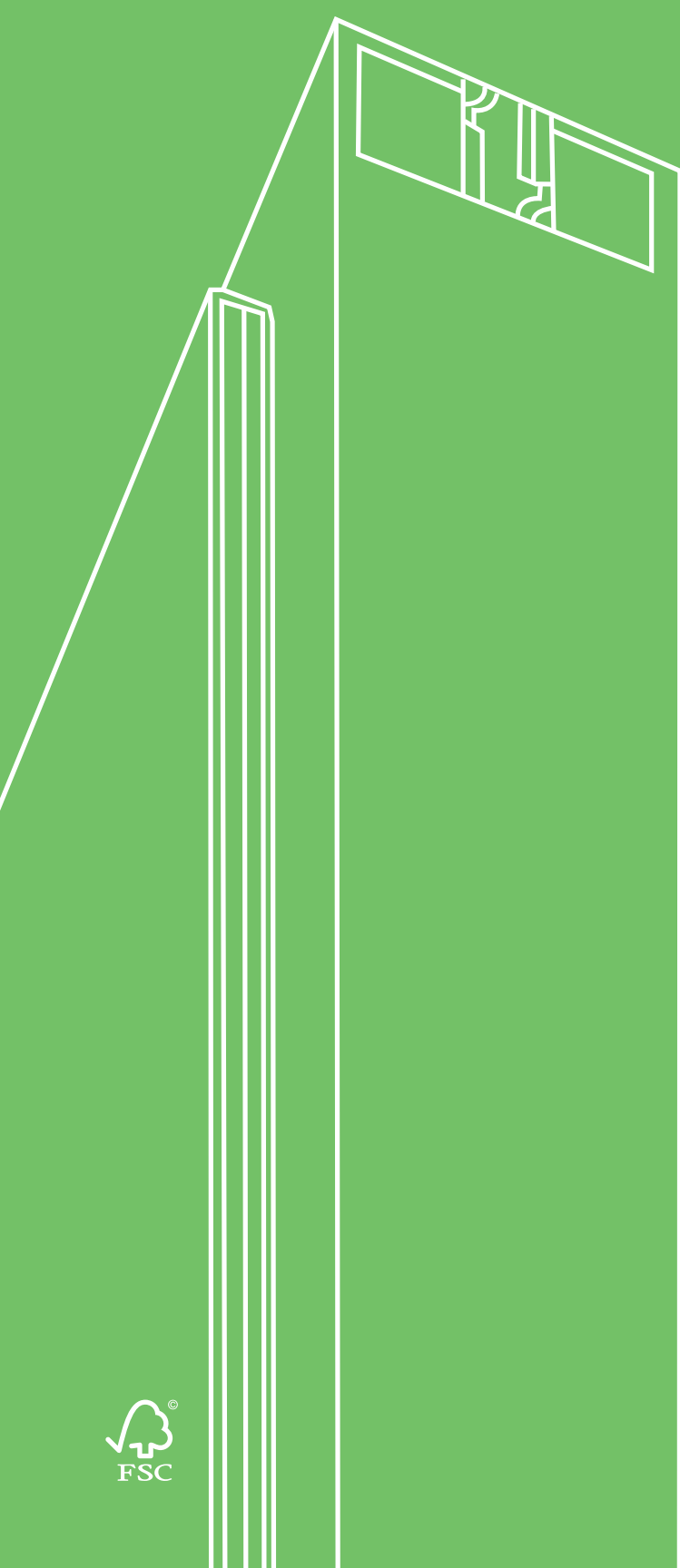
We are using our sustainability initiatives, at our office buildings and retail properties, to convey information about ENERGY STAR programs and energy reduction measures, and to help consumers and tenants better understand what they can do to reduce their energy consumption.

2012 Goals

- Implement and track energy efficiency upgrades to enable corporate reporting and metrics on portfolio-wide energy, water and waste reduction
- Certify 8-10 million SF of additional buildings in the next two years
- Focus on partnerships that have a strategic regional or corporate benefit
- Meet or exceed evolving regulatory standards locally and nationally

Recent Corporate Awards and Recognition

- **Over 22 million square feet (SF) of EPA-designated ENERGY STAR buildings**
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