



SUSTAINABILITY 2010



## Sustainability at Vornado

At Vornado, we believe that environmental sustainability is not only responsible citizenry, it is also good business. Our goal is to be a leader in sustainability by creating a corporate culture that integrates the principles of environmental responsibility and sustainable growth into our business practices, our planning, and our relationships. Vornado has already incorporated many sustainable initiatives in our buildings and in our programs, and is expanding and developing environmental best practices in our operations across the country.

Consistent with our Sustainability goals, each division is engaged in comprehensive sustainability programs and projects. The cornerstones of our efforts are energy efficiency projects, progressive energy management programs, and our LEED certification and tenant outreach efforts. To successfully manage our sustainability practices, we have organized teams within each division and within each building to identify and implement cost-effective opportunities to reduce our carbon footprint.

## Policy

Vornado's corporate policy outlines our commitment to sustainable practices in several key areas as outlined below.

### NEW DEVELOPMENT

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

### EXISTING BUILDINGS

Vornado's goal is to operate its buildings in an environmentally sustainable manner. Operations staff will establish best practices in energy efficiency, resource conservation, ecologically sensitive products, and other sustainable practices, and implement them in all possible locations. Capital upgrades and renovations incorporate, wherever feasible and practicable, sustainable materials, equipment, and technologies. When possible and appropriate, existing buildings will be certified under the LEED-EB rating system.

### CULTURE/OFFICE MANAGEMENT

Vornado encourages a sustainability-minded culture in every division and at every level. Our goal is for our offices and employees to operate with regard to sustainability best practices, with focus on the following efforts:

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

### STRATEGIC APPLICATION OF SUSTAINABLE PRACTICES

Vornado strives to rely upon its unique strengths to identify and apply the most effective sustainable practices. We seek opportunities that leverage the scale and diversity of our portfolio, the depth and breadth of our experience, and our operational expertise across all divisions. We test promising sustainable technologies in real-life circumstances in our portfolio

to implement 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, incorporating sustainable standards in contractual documents and agreements.

## Energy Efficiency and Management

Vornado's engineering and staff at every building utilize sophisticated building management systems and technology to manage and mitigate the energy consumption throughout our portfolio. Many Vornado properties also participate in demand response programs, with the capability in 2010 to curtail over 7 megawatts of power during peak demand periods when the electricity grid is strained. We continue to enhance our energy management capabilities through ongoing improvements to our metering and technology. Highlights of our energy management efforts include our one-of-a-kind Tenant Service Center and our trademarked Energy Information Portal (EIP™).

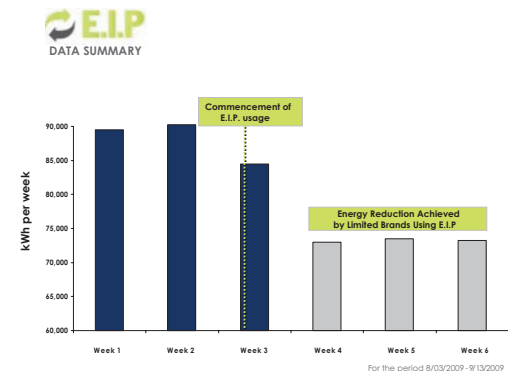
### Tenant Service Center:

Vornado operates 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 19.5 million square feet of Vornado-owned and managed properties in the Washington, DC area. At our Tenant Service Center, buildings are remotely monitored and controlled around-the-clock by licensed engineers who track building performance by monitoring over 80 different sensors in every building.



### Energy Information Portal:

In 2009, Vornado launched its Energy Information Portal, a web-based tool through which submetered tenants have access to their electricity bill, and their energy usage profiles and data. With over 70% of the energy used in office buildings consumed by tenants within their spaces, this tool is intended to help tenants identify and change wasteful energy practices within their spaces, lower electricity costs and become more energy efficient.





View of cogeneration plant  
at One Penn Plaza

## Onsite Generation

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, including the delivery of power with increased efficiency and a lower carbon footprint, and the ability to provide back-up power to tenants and more reliability to the grid. Vornado's 6.2 megawatt project at One Penn Plaza commenced operation in 2010, and is projected to provide up to 60% of the building's electricity and offset 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. Vornado continues to investigate further opportunities to implement on-site cogeneration in our portfolio.

In addition to cogeneration, Vornado is also investigating opportunities to deploy solar projects in its portfolio. In 2010, Vornado Retail began implementation of our first solar project, a 1 megawatt solar panel project at the Bergen Town Center in New Jersey.



## Green Cleaning

Maintaining a clean building environment is critical to employee health and the environment. "Green" cleaning standards utilize cleaning best practices with low environmental-impact products to ensure a high degree of sustainability. Our buildings are cleaned and maintained using a green cleaning system managed according to sustainability best practices, 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

Successful recycling and reclamation programs are key to providing a "sustainable 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.



*Materials sorted for recycling at one of Vornado's haulers.*

Vornado is committed to supporting the recycling 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, to ensure that materials that can be recycled are diverted away from landfill to separation and recycling facilities.



*Detail from the 4 tons of salvaged product at 555 California Street's former Carnelian Room.*

Of note in 2010, we completed the successful reclamation and salvage at the famous Carnelian Room restaurant on the top floor of our property at 555 California Street in San Francisco. Vornado's team worked with Ohmega Salvage Company to salvage 7,600 pounds of wood paneling and doors from the demolished space. At least 70% of the other non-hazardous tenant improvements were recycled.

The Merchandise Mart's partnership with the ReBuilding Exchange in Chicago has also provided an important outlet for diverting materials. In 2010, we diverted over 15,000 pounds of materials from the Mart through this partnership.

## 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 corporate sustainability policy commits us to strive for LEED NC/CS Gold certification or better in all new construction and development that we manage. Recent examples of our commitment are the



*Merchandise Mart*



*1999 K Street, a LEED gold development*

completion and LEED Gold certification of 1999 K Street and 25 West End properties in Washington, DC.

Vornado is also currently working to certify its existing buildings portfolio under the LEED EB O&M platform. The LEED EB system is an internationally recognized certification that measures how well a building or community performs across important environmental metrics: energy savings, water efficiency, CO2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

The first building in our portfolio to reach LEED EB status (Silver certification in 2007) is our Merchandise Mart building in Chicago. Since then, we have certified another 10 million square feet of space under the LEED EB rating system, with an additional 4 million square feet expected by the end of 2011. The Mart also has 13 LEED CI tenants (10 gold, 3 silver), and the 350 W Mart Center/Holiday Mart Plaza project received LEED EBOM Gold. This is one of few mixed use properties with a hotel that has received this level of certification.

To learn more about LEED, visit [www.usgbc.org](http://www.usgbc.org)

## 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. Our outreach through our website, quarterly newsletters, and email announcements has helped make tenants aware of our progress. More importantly our outreach has helped to build strong landlord-tenant energy reduction partnerships.



## 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 square feet of buildings in our office portfolio have received the prestigious ENERGY STAR label, and we are working to receive more.

Moreover, we are using our sustainability initiatives, at our buildings and malls, 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.



## Recent Corporate Awards and Recognition

- Over 22 million square feet of EPA-designated ENERGY STAR buildings
- Over 15 million square of LEED EB certified existing buildings in the portfolio
- Over 1.4 million square feet of LEED NC or CS certified new buildings
- NAREIT Leader in the Light Gold Award 2010, highest level award

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