The Role of Tenant and Property Operations in Implementing Sustainable Practices

Om Taneja

PBS Tenant and Property Operations Division

Our Function

Bridging the gap from policy/concept to operations & maintenance

26 FEDERAL PLAZA

FEEDBACK
CUSTOMER FEEDBACK
IAQ
ENERGY PERFORMANCE

Strategic Direction

- *Track, Benchmark and develop measures to meet the policy targets*
- *Facilitate design guidance to integrate indoor environmental quality (IEQ), energy efficiency and other aspects of sustainable building performance.*
- *Lead the drive toward the design, construction and operation of Energy Star & LEED-Certified Buildings.*
- *Develop performance metrics and rating systems to certify operational performance of buildings for energy efficiency and IEQ.*
- *Use Industry Best Practices for Buildings Operations & Maintenance*
- *Collaborate and be a resource to Tenant Agencies in meeting energy efficiency and environmental compliance goals*

Substantive Direction

- *Promote Environmentally friendly cleaning*
- *Recycle & Separate/Manage Universal Waste*
- *Operate & Maintain Major Buildings Systems to deliver comfort & energy & water conservation*
- *Metering & Benchmarking Performance*
- *Bi-annual Indoor Air Quality Testing & Balancing Measures*
- *Annual Electrical/Mechanical Systems Testing*
- *Adjustments based on customer feedback*
- *Independent audits and reviews*
- *Use Energy as a Performance Measure of PBS*

Leadership in Environmental and Engineering Design

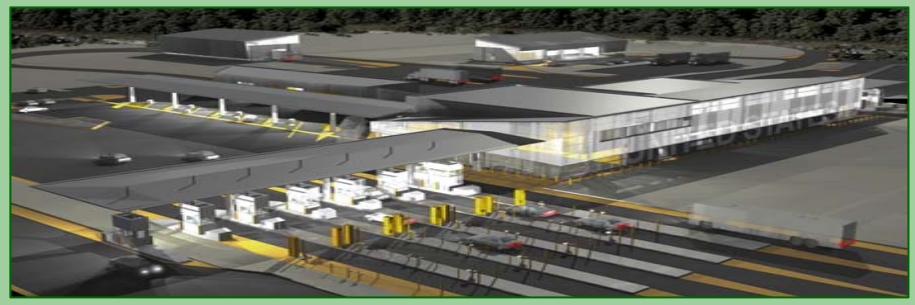
(LEED) Rating System

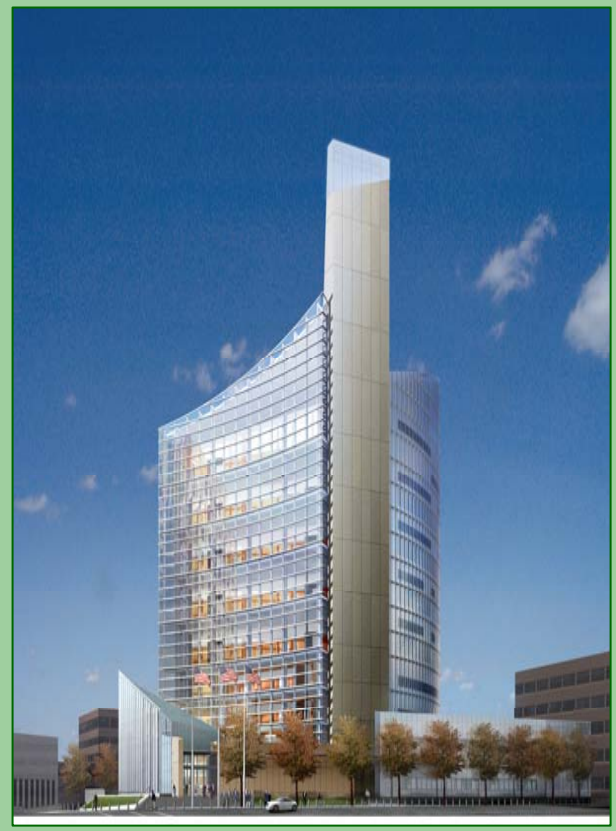
Factor	No. of Points	% of Total
Sustainable Sites	14	20%
Water Efficiency	5	7%
Energy & Atmosphere	17	25%
Materials & Resources	13	19%
Indoor Environmental Quality	15	22%
Innovation & Design Process	5	7%
TOTAL	69	100%

USGBC rates buildings for sustainability, as follows:

- Certified: 26-32 points
- Silver: 33-38 points
- Gold: 39-51 points
- Platinum: 52-69 points

Sample GSA Region 2 Projects





Massena Border Station, NY

LEED Project:

- Dual Flush Toilets; Waterless Urinals;
- Auto lighting sensors
- 90% Recycle content building materials

*Construction Waste Management

Massena Border Station, NY

Champlain Border Station, NY

LEED Project:

- Dual Flush; Waterless Urinals
- Light Harvesting
- 65% Recycle content building materials
- Construction Waste Management
- STAR energy roofing
- First Border Station to achieve LEED Rating

Champlain Border Station, NY

U. S. Courthouse, Buffalo, NY:

LEED Project:

- Easy access to the building by public transportation; storage capacity for 55 bicycles
- 30% less water; 50% less energy than what is allowed by current energy standards (ASHRAE 90.1-1999)
- High Performance lighting and HVAC system
- 10% recycled content in addition to having 20% of the materials manufactured locally
- Construction Waste Management Plan will be used to recycle at least 50% of all construction wastes.

U. S. Courthouse, Buffalo, NY:

Ted Weiss Federal Building – New York, NY

- Energy Star Building – 1999 and 2006 **Won two BOMA awards** – The Earth Award and the Government Building Award.
- Use of sensors for controlling lights based on daylight, occupancy and assessed need.
- Interiors designed with low-impact furnishings, fixtures and equipment.
- Low-flow technologies adopted for restrooms.
- Condensate generated by the chillers is recycled and used as make-up water for the cooling towers.
- Low wattage compact fluorescent light bulbs, and energy efficient, deep parabolic fixtures limit power draw.
- Variable Frequency Drives .

Ted Weiss Federal Building – 290 Broadway NY, New York

Thurgood Marshall U. S. Courthouse, New York, NY

Infrastructure Upgrade Renovation

The goal on this project is to be Certified LEED

- Environmentally-friendly certified wood
- Recycled material (carpeting, ceiling tiles)
- Construction Waste Management
- Option to contract (if approved) 6th floor “Green” roof

Thurgood Marshall U. S. Courthouse, Foley Square, NY New York

201 Varick Street, New York, NY

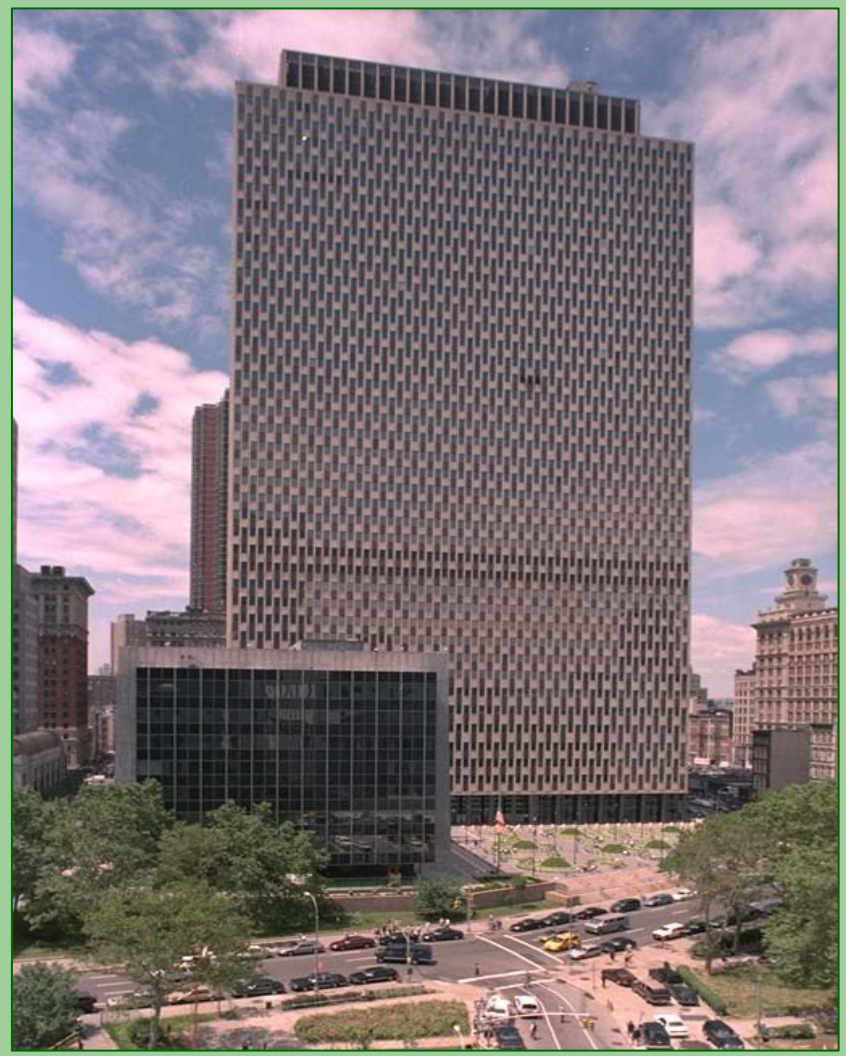
Combined Heat & Power Plant

- Will supply electricity to the 1 million plus square foot building.
- The units run on gas and as long as that source is available 201 Varick will be electrically powered even in a blackout.
- Without any loss of power issue, the system is guaranteed to save the government at least $250,000 in energy use costs per year - actual savings will be higher.

201 Varick Street

Jacob K. Javits Building – New York, NY

- Prospectus project planned to remove all asbestos containing materials
- Lighting upgrade project in progress
- HVAC upgrades
- Remote Metering



Jacob K. Javits Building

GSA Northeast and Caribbean Region

Environmental Benefits of Energy Efficiency Projects

Frank Napoli

ConEdison *Solutions*

26 Federal Plaza

Energy Efficiency Lighting Project

Energy Savings:

- Upgrade approximately 31,000 fixtures
- Energy savings -2,700,000 kWh per year
- Demand reduction - 638 kW
- Energy cost savings - $518,000 per year

26 Federal Plaza

Energy Efficiency Lighting Project

Environmental Benefits:

- 6,800,000 pounds of Carbon Dioxide saved per year
- Equivalent number of trees planted = 80,670
- Equivalent number of cars taken off the road for one year = 700