

The Delaware Tower – Sustainability Plan

The Delaware Tower is a 17 story high rise condominium, located at 1088 Delaware Avenue in Buffalo, NY. Built in 1962 as an apartment building, it converted to condominiums in 1990.

A Green Team was established in 2008

- Consisted of 8 residents
- The focus was to make recommendations and suggestions to the Board of Managers regarding ways to reduce energy and to improve our recycling efforts.
- In addition, the intent was to also educate residents about:
 - ways to reduce energy use in our homes,
 - how to improve and/or expand recycling,
 - environmental issues including local events and efforts.

Lighting Reconfiguration/Energy Savings Plan with National Grid – 2015/2016

National Grid offered an energy conservation program for businesses with average monthly demand less than or equal to 110 kW. Under the program National Grid arranged for the replacement of certain lighting fixtures and bulbs with fluorescent lighting throughout common areas of the building's interior and exterior in order to use energy more efficiently.

Projected savings:

- Reduce greenhouse gases (CO₂) annually by 243,754 pounds.
- Estimated Annual Savings (KWH) = 221,594.69
- Estimated Annual savings in Dollars = \$24,641

Estimated Job Cost: \$98,945.46

- DT Contribution = \$40,782 (includes discount of 15%)
- National Grid Contribution = \$50,967 (estimate)

Implementation began August 2015.

Project completed October 2015.

(final adjustments were made in Q1 2016)

Electrical usage is being tracked via the Energy Cooperative and data will be compared over the last three years of usage.

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NYSERDA Audit – Implemented August 2008

The New York State Energy Research and Development Authority (NYSERDA) offers objective information and analysis, innovative programs, technical expertise, and funding to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce reliance on fossil fuels. Specifically, NYSERDA offered the Delaware Tower Condominium information and financial incentives to make our 16-story, 1960's-era building more energy efficient with increased load flexibility and increased use of renewable energy sources.

In August 2008 the Delaware Tower Condominium Association hired CJ Brown (an engineering firm that specializes in energy conservation & utilization management) to conduct an energy audit of the building. NYSERDA paid \$10,000 (most of the cost) of CJ Brown's energy audit and recommendations on energy efficiency. Gerster Trane (a company that specializes in heating, air-conditioning services) used the report to identify and implement 6 measures that would yield best pay back including:

- New exhaust fans
- New air intake system
- New Light fixtures for the common area, i.e., compact fluorescent lights and the smaller T8 fluorescents
- Two new condensing high efficiency boilers
- New control variable frequency drives for pumps
- Heat recovery system to pre-heat air coming into building (glycol system)

Total project cost: \$487,832

- \$91,620 came from NYSERDA
- \$396,212 borrowed from HSBC on which the Delaware Tower Condo Association was quoted a loan rate at 6.22 % interest rate but reduced to 3.22% by NYSERDA.
- As a result of this project, the Delaware Tower has saved about \$65,000 annually in energy costs - which paid for the yearly loan payments of \$62,000. The loan will be paid off in November 2015.

The reduction in energy use and resultant savings continue to benefit the Delaware Tower Association and its residents and to help New York state achieve its goals for energy efficiency.

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Recycling

The building has had recycling for over 20 years, but in 2008 contracted with Cascade to begin expanded recycling of paper products, plastic, glass and metal/aluminum. Due to the volume of paper products collected at our site, there now is no cost for collection of our recycled materials.

Past and Ongoing Efforts:

- In 2012 The Green Team initiated the first building wide, week-long “Shredding Event”. The condominium contracted with an outside professional vendor to provide bins in order that residents could put their materials in the secured bins and be assured that their confidential items would be professionally and safely disposed of.
- The Green Team regularly posts:
 - notices about upcoming recycling events in the area for:
 - drugs/pharmaceuticals,
 - electronics,
 - TV’s,
 - clothing drives, etc.
 - Information about where residents can recycle certain products such as light bulbs, plastic bags, prescription and OTC drugs.
- The Green Team recommended that building notices be distributed electronically, and that the building’s resident directory (as well as other documents) be printed 2-sided.

Suggestions made by the Green Team to reduce energy use:

- Timers were installed on lights in common areas in order to eliminate the need to have lights on 24/7.
- New energy efficient washers and dryers were installed in 2009. Due to the power of the new dryers, the Green Team recommended that the pre-programmed dryer time be reduced from 60 to 50 minutes per cycle.
- Residents were given the opportunity to replace their original unit’s windows with thermal paned windows at a group rate in 2008
- Re Lawn care:
 - suggested that the use of chemicals for lawn treatment be eliminated or reduced.
 - A sprinkler system was installed made watering more efficient.
 - suggested that the lawns be mowed at a higher height in order to reduce watering requirement and improve healthy root system which subsequently reduced the frequency of mowing.