

Pittsburgh 2030 District

Case study: Day Cleaning at 11 Stanwix



Building Statistics

Owner	GLL Real Estate Partners
Constructed	1970
Occupied Space	450,575 square feet
Number of Floors	23
Structure	Steel and Concrete
Facility type	Class A Office
Energy Star Score	76

Certifications

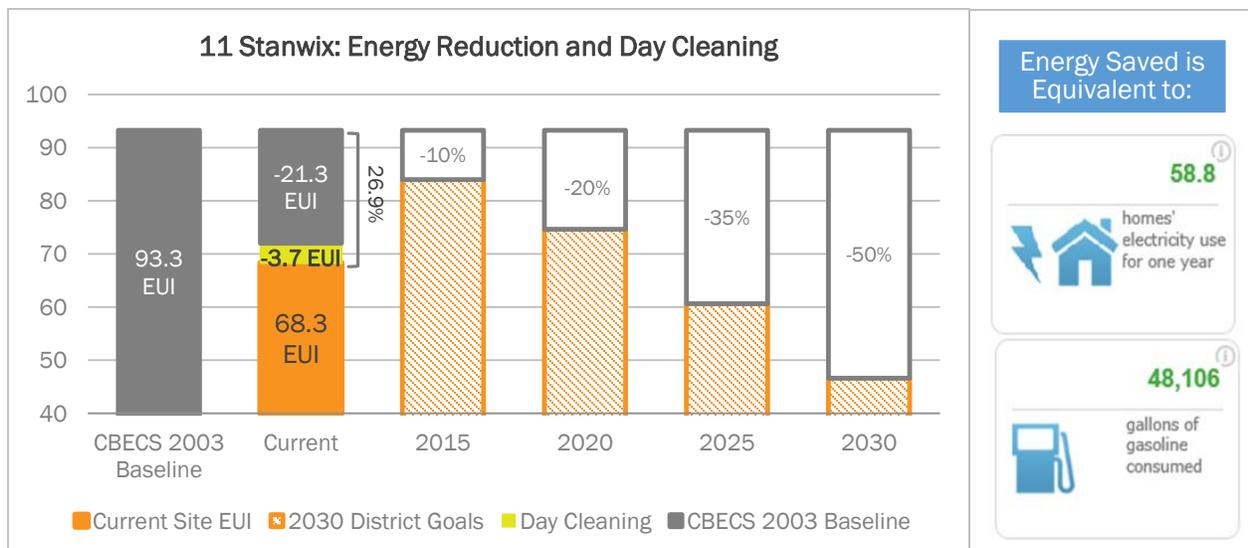


Benefits of Day Cleaning

Day cleaning is a recent trend in which building owners and managers modify their cleaning schedules to allow for cleaning during daylight hours in order to reduce energy consumption. When implementing day cleaning, the building can be shut down at night to conserve energy. Day cleaning provides immediate energy savings, decreased operating expenses, reduces environmental footprint, and meets occupant's sustainable goals. Both occupants and staff benefit from day cleaning, and levels of satisfaction increase as the relationships between cleaning staff and occupants grow. Day cleaning is a sustainable, low risk, and inexpensive investment that has a short payback period before net savings are observed.

Energy Savings

Energy Use Intensity (EUI)	68.3
National Average EUI Class A Office	93.3
Energy Use Below the Baseline	26.90%
Reduction of energy use	5.50%
Energy Saved Annually	620,000kWh
Reduction of Carbon Emissions	~428 metric tons



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Economic Savings

Significant economic savings were observed from the reduction of lighting and HVAC activity after regular business hours. The capital required for the project was minimal, allowing an almost instant payback.

- Investment: **\$5,000** for quiet vacuums, **\$300-\$400** per month for new uniform supply.
- Total investment to date: **~\$9,000**
- Average savings estimated to **\$0.12 per square foot**
- Estimated **5.5% total energy cost** savings
- Savings from removal of day porter position: **\$50,000**
- Total Annual Savings: **~\$104,000**
- Return on investment: **1-2 Months**
- $\$104,000 \text{ Annual NOI Increase} / 0.075 \text{ Capitalization Rate} = \mathbf{\$1,386,667 \text{ Asset Value Increase}}$

Conversion to Day Cleaning

Day Cleaning is not simply “night cleaning” during normal office hours, as it requires a completely new approach to cleaning. It maximizes efficiency between cleaning staff and occupants/tenants. The cleaning routes, schedules, and paths were managed to fit the tenant’s needs, without disrupting business. However, regardless of the shift change and different cleaning paths, the specific cleaning tasks have remained the same.

Day Cleaning Components

- Detail, patrol, and periodic cleaning techniques benefit both the cleaners and occupants
- Sustainable and quieter cleaning equipment, and Green-Seal certified cleaning agents
- Personal space cleaning allows for constructive interaction between the cleaner and occupants
- Cleaning requests and wave-off policies increase efficiency
- Communication via emails, websites, and calendars enables staff and occupants to stay on the same page

Methods and Procedure

Building management and operators implemented a two-phase procedure over six months, after an eight month long campaign with five education and learning events for both staff and tenants. Their strategy included:

- Minimal cleaning on the weekend
- Sets of preliminary occupant and staff education instances, which were necessary as the cleaning staff must know how to interact with tenants on a daily basis.
- Lighting control panels were installed and building security verifies that by 7:00pm all lights are off except areas occupied by tenants.
- In addition to savings from less light use, HVAC and major heating and cooling equipment are shut down at 6:00pm and turn on around 3:00am.



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Two-Phase Approach

	Before Day Cleaning	Phase One July 2013	Phase Two January 2014
Cleaning Starts	9:30pm	6:00pm	5:00am
Cleaning Ends	5:30am	2:00am	1:00pm
Hours Saved	0	3.5	11

Key Lessons Learned

- Communication is key to any successful day cleaning program.
- Accommodations should be addressed in a timely manner to meet any tenant's interests.
- Ask the tenants what they really want and what will make them successful, and then apply this knowledge when organizing the program.
- Since day cleaning requires a minimal capital investment, and modification to the old cleaning strategy is not difficult.
- Do not be concerned if the electricity bill is not reduced. Track electricity consumption, and ensure new procedures are being followed. The savings will follow but may not be obvious.
- The largest challenge may be having tenants support the change, but once day cleaning is implemented, there will be few, if any complaints.
- Be prepared to ask site specific questions with your contractor, such as:
 - When does the building open for employees/customers in the morning?
 - Are there after hours operations? If so when and where?
 - How are conference rooms scheduled?
 - Is there a cafeteria in the building? What are the hours?
 - Identify cleaning sensitive areas such as Executive, Call Centers, Labs
 - Is the building accessible for cleaning on Saturday and Sunday?
 - Are employees interested in supporting sustainability by emptying their own trash bins?

For additional information on converting your building to day cleaning, view the corresponding appendix on the Pittsburgh 2030 District website: [Keys to Success](#)

Questions on how to start your own Day Cleaning Program? Contact the Pittsburgh 2030 District at the Green Building Alliance via email: pittsburgh@2030district.org