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Advantage
Platform



FM RESEARCH AND BENCHMARKING INSTITUTE STAFF

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PREPARED BY



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Sustainable Operations and Maintenance Practices

Green Certification Status
Recycling
Green Janitorial Practices
Water Conservation
Energy Management Practices

Recycling

About 14 percent of the respondents have implemented some type of recycling program. Paper is the most common item recycled.

Percent of Solid Waste Diverted from Landfill

| Percentile | % of Solid Waste |
|------------|------------------|
| 99% | |
| 95% | |
| 90% | |
| 75% | |
| 50% | |
| 25% | |
| 10% | |
| 5% | |
| 1% | |
| Mean | |

Green Janitorial Practices

Since cleaning is a labor-intensive process, one of the goals of green cleaning is to minimize exposure of chemicals and cleaning agents to housekeeping staff, workers and visitors while minimizing waste into the environment.

| % | GREEN CLEANING |
|-----|---|
| 55% | Use cleaning chemicals that meet green cleaning certified standards |
| 55% | Use janitorial paper products made with recycled content/renewable resources |
| 55% | Have an effective walk-off mat system outside and inside each entry |
| 55% | Use vacuum cleaners with high-filtration filters |
| 55% | Use automatic chemical dispensers to reduce exposure and ensure proper dilution |
| 55% | Use microfiber wipes & mops instead of traditional dusters, mops and damp mops |
| 55% | Stand-up/upright vacuum cleaners are still used |
| 55% | Eliminated all disinfectants and sanitizers, except where specifically required |
| 55% | Utilize vacuum cleaners with a decibel level less than 70 |
| 55% | Replaced multi-fold hand towels with hand dryers |
| 55% | Reduced/eliminated plastic trash liners (substituting reusable-liners) |

| % | Green Cleaning Strategy |
|-----|--|
| 55% | Janitorial procedures are audited on a periodic basis |
| 55% | Green cleaning certified staff or contract service |
| 55% | Implemented a green cleaning training program for janitorial staff |
| 55% | Green cleaning procedures are documented |
| 55% | Green cleaning training is regularly provided and documented |
| 55% | NO Green Cleaning Procedures |

Legislative Sustainability Mandates

| | WASTE STREAM MANAGEMENT | WATER | ELECTRICITY | ENERGY STAR SCORES | CARBON REPORTING | NO LEGISLATIVE MANDATES |
|---------|-------------------------|-------|-------------|--------------------|------------------|-------------------------|
| % using | 55% | 55% | 55% | 55% | 55% | 55% |

Energy Management Practices

Energy management practices examined included lighting, equipment and controls, building and envelope, and renewable sources. The energy management practices that are most often implemented, such as the adjustment of thermostats and HVAC operating hours, do not require an outlay of capital.

| % | EQUIPMENT & CONTROLS |
|-----|--|
| 55% | Adjusted operating hours of HVAC% |
| 55% | Installed variable speed drives for pumps and motors% |
| 55% | Monitor power quality to balance loads and reduce waste heat% |
| 55% | Installed energy efficient motors% |
| 55% | Set back thermostat% |
| 55% | Installed energy efficient heating equipment% |
| 55% | Installed energy efficient ventilation equipment% |
| 55% | Installed energy efficient chillers% |
| 55% | Increased number of times monitored/controlled w/ building automation systems% |
| 55% | Require the purchase of energy efficient selections (e.g., Energy Star)% |
| 55% | Installed energy efficient air compressors% |
| 55% | Repaired compressed air and steam leaks% |
| 55% | Change pneumatic controls to digital% |
| 55% | Asset direct metering (e.g., pumps, motors, etc.)% |
| 55% | Implemented smart metering% |
| 55% | Installed electrical sub-metering for usage tracking of sub-units% |
| 55% | Implemented smart or automated demand response% |

| % | BUILDING ENVELOPE |
|-----|--|
| 55% | Performed thermal imaging study to detect sources of building heat loss% |
| 55% | Improved building shell insulation% |
| 55% | Installed energy efficient windows% |

| % | LIGHTING |
|-----|--|
| 55% | Replaced existing light fixtures with new light fixtures% |
| 55% | Installed occupancy sensors% |
| 55% | Retrofitted existing light fixtures% |
| 55% | Adjusted operating hours of lighting% |
| 55% | Selectively reduced the number of lamps in over-lit areas% |
| 55% | Implemented daylight harvesting% |

| % | RENEWABLE |
|-----|---|
| 55% | Installed solar systems for electric use% |
| 55% | Has electric vehicle charging stations% |
| 55% | Purchased green power from an outside source% |
| 55% | Uses alternative or renewable energy% |
| 55% | Has onsite power generation% |
| 55% | Installed a wind generation system for electricity% |
| 55% | Installed solar power for hot water% |
| 55% | Installed solar systems for heat use% |
| 55% | Installed a geo-thermal system% |

Water Conservation

The most common water conservation practices were installing low-flow water fixtures and planting native/drought tolerant plants.

| CLIMATE ZONE | LOW-FLOW FIXTURES | WATERLESS URINALS | COOLING TOWER BLOWDOWN RECYCLING | RAIN HARVESTING | DROUGHT TOLERANT PLANTS | COMPUTERIZED IRRIGATION CONTROLLERS | REDUCED IRRIGATION | RECLAIMED WATER | OTHER |
|--------------|-------------------|-------------------|----------------------------------|-----------------|-------------------------|-------------------------------------|--------------------|-----------------|-------|
| Hot-Humid | 55% | 55% | 55% | 55% | 55% | 55% | 55% | 55% | 55% |
| Mixed-Humid | 55% | 55% | 55% | 55% | 55% | 55% | 55% | 55% | 55% |
| Hot-Dry | 55% | 55% | 55% | 55% | 55% | 55% | 55% | 55% | 55% |
| Mixed-Dry | | | | | 55% | 55% | 55% | 55% | |
| Cold | 55% | | | | | | | | |
| Marine | 55% | 55% | 55% | 55% | 55% | 55% | 55% | 55% | 55% |
| CN2 | 55% | 55% | 55% | 55% | 55% | 55% | 55% | 55% | |

Energy Management Strategy and Employee/Tenant/Training Practices

| | Conducted Energy Audit | Strategic Energy Management Plan | Hired Energy Consultant to Improve Energy Efficiency | Written Plan for Strategic Energy Management | Assess Energy Management Capabilities for New Real Estate | Promoted Energy Use Reduction to Employees/Tenants | Provided Training to Facility Management Staff to Reduce Energy Use |
|---------|------------------------|----------------------------------|--|--|---|--|---|
| % Using | 55% | 55% | 55% | 55% | 55% | 55% | 55% |