



Green Generation Solutions, LLC

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Energy Efficiency and Sustainability Solutions

Member since February 2012

MANAGEMENT AND LEADERSHIP

Environmental Policy Statement

“This Sustainable Office Policy Guide is developed to provide GreenGen staff with the ability to embrace environmental values, leading to a more sustainable office environment. In order to assist GreenGen in integrating sustainable practices into their day-to-day ethos and support the existing sustainability progress, this guide details simple processes to increase the energy efficiency of GreenGen’s offices; develop sustainable procurement practices; develop waste management procedures; and facilitate shifts in behavior that support Green Generation Solutions’ values.”

Annual Environmental Goals

Green Gen has begun several quantifiable energy management initiatives. The first is an IT policy regarding power savings modes on computers, monitors, and printers. The second is the installation of a measurement and control system on all plugloads in the office that provides robust information down to one-second intervals on energy use.

Environmentally Preferable Products and Services

Green Generation Solutions, LLC optimizes client profitability by implementing customized, enterprise-wide energy solutions. GreenGen engineers and implements integrated energy solutions aimed to improve the profitability of our client’s facilities and their operations. It is our belief that every business can be more profitable by making energy decisions backed by comprehensive analysis, collaborative planning, and on-going measurement of results. At GreenGen, we offer a wide array of services, which include: high efficiency lighting retrofits, HVAC optimization, building commissioning, building envelope assessments, procurement, CHP system development and “smart building” systems, and dashboard integrations.

☒ **Environmentally Preferable Purchasing**

We strive to purchase and use environmentally friendly products. Recognizing that taking responsibility for our purchasing practices is essential to our environmental future, we hold our office and staff to the following purchasing standards.

- ▶ *Letterhead, business card, and envelopes are made from at least 30% post-consumer recycled paper*
- ▶ *Copier/printer uses paper that is FSC certified and endorsed by the Rainforest Alliance*
- ▶ *When remodeling, low VOC-emitting adhesives, sealants, and paint were used, contributing to improved indoor air quality*
- ▶ *Carpeting and furniture made from recycled content and certified for indoor air quality standards, contributing to improved indoor air quality*
- ▶ *Bottled water is prohibited; filtered water provided from an energy-efficient cooler*
- ▶ *Compostable cups made from corn for water consumption for staff and guests*
- ▶ *Biodegradable utensils; plates, napkins, cups all made from post-consumer recycled materials*
- ▶ *Biodegradable and non-toxic cleaning supplies*
- ▶ *Rechargeable batteries used for all users' wireless equipment*
- ▶ *Whenever possible, purchase recycled or environmentally friendly office products*
- ▶ *When possible, procure materials and services from a local business*
- ▶ *Repurposed gym lockers used as storage space for employees*

☒ **Environmental Restoration or Community Environmental Projects**

GreenGen participates in community project that recycles, refurbishes, or safely disposes of outdated or inoperative computers, cell phones, televisions, and other electronic devices, ensuring that the devices are handled in a way that doesn't compromise sensitive information or impact the local environment.

WASTE

☒ **Solid Waste Reduction and Reuse**

GreenGen's mission is continually to reduce our waste while recycling and reusing in every possible aspect of our practice. We have implemented the following policies and hold all GreenGen staff members to a very high standard of responsibility with regard to waste reduction.

- ▶ *Most forms, letters, and invoices are sent electronically, unless it is necessary to print for signature*
- ▶ *Shipping and packing materials are saved and reused whenever possible*
- ▶ *Mugs and utensils should be used in office for staff in lieu of disposable materials*

- ▶ *Efficient printing and copying:*
 - *Avoiding printing whenever possible; materials are never printed or copied unless absolutely necessary; everything is scanned and referred to in electronic format.*
 - *Most correspondence is done by email, and all outgoing emails ask recipients to consider the environment before printing emails*
 - *Default copy/print settings for all users set to duplex*
 - *Circulating single copies for office distribution rather than making multiple copies*
 - *Faxing from desktop to minimize unnecessary printing*
 - *Employee manuals, reference documents, and similar materials are circulated electronically, rather than distributing print copies*

☒ **Recycling**

- ▶ *Anything that can be recycled is recycled; there are multiple containers throughout the office for paper and commingled recycled items; cardboard boxes are broken down and recycled*
- ▶ *Shredding bin located by printer for waste paper, which is then recycled. We anticipate that 300-500 lbs of paper per year will be recycled in this manner.*
- ▶ *Landlord's janitorial staff is trained and supervised to comply with recycling/reuse policy*
- ▶ *Recycled materials are purchased where available*
- ▶ *Old electronic equipment is sent to Montgomery County for recycling, refurbishing, or safe disposal*

ENERGY

☒ **Energy Efficiency**

At GreenGen, energy conservation is a priority. Our aim is to minimize energy whenever possible. We have reduced our carbon footprint significantly by doing so and aim to reduce it further. We require all staff members to observe and follow the policies listed below.

- ▶ *Refrigerator, copier, and other appliances are Energy Star® rated; refrigerator is set to 36-40°F*
- ▶ *All computer monitors are flat panel*
- ▶ *All lights are turned off when not in use. Lights are kept off when possible during business hours as panoramic windows in the office are an excellent source of light.*
- ▶ *Air conditioning units are new and have been optimized for efficiency*
- ▶ *All computers except servers are turned off every evening*
- ▶ *Installation of wireless plugload controls*

These controllers track energy consumption and control resistive loads and are used to eliminate power consumption from phantom loads. These loads are now automatically turned off on weeknights from 7pm to 9am and on weekends. The impact of these policies and systems on kWh consumption and the associated environmental benefits of both our Power Management Strategy and our Plugload Management Strategy are provided here:

Quantified Results of Power Management Strategy					
Type of Devices Controlled	Quantity Controlled	Average Watts when "on"	Average Watts when in power saving mode	Average Reduction in "on" Operating Hours Per Week	Annual kWh Saved
Computer Monitor	9	30	2	118	1546
Docking Station/Laptop	9	20	3	118	939
Printer	2	200	5	118	2393
Total Annual kWh Saved					4878

Quantified Results of Plugload Management Strategy				
Type of Devices Controlled	Quantity Controlled	Average night and weekend Watts	Average Operating Hours Per Week Saved	Annual kWh Saved
Computer Monitor	2	2	118	25
Docking Station	2	3	118	37
Cell Phone Charger	2	3	118	37
Desk Phone	1	4	118	25
Printer	1	5	118	31
Total Annual kWh Saved				153

Carbon Impact of Plugload Management Strategy				
Annual kWh Saved	lbs CO2	lbs CH4	lbs NO2	Total lbs CO2e Saved
5,032	6,877	0.13	0.10	32,866

Pollution Reduction Impact of Plugload Management Strategy			
Annual kWh Saved	lbs Sulfur Dioxide	lbs Nitrogen Oxide	lbs Mercury
5,032	25.12	9.40	0.000145

TRANSPORTATION

Employee Commute

At GreenGen, we instill environmental responsibility as a corporate value. Our goal is to educate and encourage our staff and clients to be aware of their obligation to mitigate our business impact on the environment. As part of this mission, we

provide environmentally friendly transportation options to our staff members and hold them to a high standard of environmental responsibility by taking the following steps:

- › *Two-third of office staff either walks, bikes, or takes mass transit to work; the company CEO drives an electric car*
- › *Bicycle racks are offered in the parking garage of our building; if an employee would like to bring their bicycle in the office for added security, we provide storage space in the office*
- › *Metro rail station is ½ mile away from our building; free commuter shuttle stops at our building*



Efficient Business Travel

- › *GreenGen has invested in a branded teleconferencing suite that allows us to confer with our clients, share materials, and conduct virtual meetings, saving thousands of travel dollars and reducing many thousands of travel miles.*
- › *While on business travel, we endeavor to book environmentally friendly hotels within walking distance of the meeting location to eliminate the need for transportation*
- › *Employees take the train, bus, or subway when feasible instead of a rental car when traveling on business. If it is necessary to rent a car, staff asks rental agency if they offer hybrids and other high-mileage vehicles.*

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