“Green” Hotels Association
GREENING NEWSLETTER

ALLY MEMBER SUCCESS STORIES

It’s a fact that none of us can be really green without the green products and services offered by green vendors. GHA works hard to encourage and support our Ally Members, and to bring you news of their successes—new products, new ideas, new techniques, recent awards, new contracts, etc. So, each July/August issue of this newsletter brings you interesting stories about our Ally Members. So, let’s begin . . .

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Design Honors Awarded to Impact Enterprises, Inc.

ALLY MEMBER Impact Enterprises recently was awarded recognition from Design Journal Magazine for their Environmentally Responsible Presentation Products. The ADEX PLATINUM Award for Design Excellence was presented to Impact for its creative and uniquely designed Surfboard Menu Cover. This menu cover design is solid wood—cherry from a Verified Sustainable Forest, and has the unique shape of an authentic surfboard. This menu ‘board’ comes with its own solid wood base which allows the board to stand vertically on a tabletop, and be removed and reinserted easily. A unique and flawlessly designed wood frame was created for the ‘interior’ side of the surfboard that allows for easy insertion and removal of printed inserts. The decoration is laser engraved. All of Impact’s woods are harvested from Verified Sustainable Forests.

Impact Enterprises has produced environmentally responsible presentation products and accessories for Live Nation Entertainment, Ritz-Carlton Hotels, Marriott Hotels, Primland and GAIA (both internationally respected eco-resorts), Trump International, Banyan Tree Resorts, One & Only Resorts, Ferrari and others. For more information, visit impactenterprises.com, or call 866/370-0340.

EYEPOWER® Solution Helps Customer Win Asia-Pacific’s “Most-Sustainable Hotel” Title

The Crowne Plaza Alice Springs won unanimous recognition as Asia-Pacific’s most environmentally-sustainable hotel after installing an ALLY MEMBER Energy Eye guestroom energy management system. “It’s exciting to see our environmental sustainability initiatives validated and recognized,” said Investnorth principal and hotel owner Lloyd Berger. Berger accepted the award, along with Intercontinental Hotel Group’s Chief Development Officer for Asia Pacific, Tony South.

“We are so pleased that the Crowne Plaza Alice Springs was recognized in such a prestigious way,” said Peter Cohen, Chief Operating Officer of Energy Eye, Inc. “While we are just one part of the property’s overall sustainability program, the EYEPOWER® Solution provides a critical leaping-off point for projects of this magnitude. The Energy Eye part—while representing a tiny fraction of the overall investment required—has generated compelling results. Savings of more than 264,475 kilowatt hours can be tied directly to the EYEPOWER® Solution in this project.

The EYEPOWER® solution, independently tested and certified to save 15-35% on HVAC energy usage, delivers its results via the application of occupancy, door and window sensors, plus thermostat control. And because the EYEPOWER® solution is thermostat-neutral, hotel owners can easily integrate the system into their existing HVAC systems. For more information, visit energy-eye.com or call 866/463-3135.

Kimberly-Clark Eyes Bigger Sales of Lower-Impact Products

ALLY MEMBER Kimberly-Clark (kcprofessional.com) has announced a new set of environmental and social goals, putting a deadline on when all of its fiber will be certified sustainable and emphasizing products and packaging with less impact. The company behind Kleenex, Scott, Huggies and other paper products aims to reduce water use by 25%, reduce absolute greenhouse gas emissions by 5%, purchase only certified sustainable fiber and send no manufacturing waste to a landfill. The goals are all for 2015.

Concurrently, Kimberly-Clark is pushing to have 40% of the tissue fiber it uses in North America to be FSC certified or recycled by the end of this year. In addition to strictly environmental goals, Kimberly-Clark set other new targets. Kimberly-Clark plans to reduce the carbon footprint of its packaging by 20%.

The company also wants “environmentally innovative products” to account for 25% of net sales. Spokesperson Kay Jackson said that includes items like the Scott Naturals line of products, which are made with at least 40% recycled content; the tubeless Scott toilet paper rolls being tested in the northeast US; and products that are designed to use less resources. Kimberly-Clark also plans to establish social programs in all the communities it operates in; and have all contract manufacturers and top suppliers comply with its social standards.

INNCOM’S EARTH-MINDED AWARD

ALLY MEMBER INNCOM’s Glass Series Guest Interface Device Suite, an eco-friendly lighting and thermostat central...
control system won Hospitality Design (HD) magazine and ASID’s Earth-Minded Award for Hospitality. Made from recyclable glass and plastics, all models are capable of simultaneously controlling lighting, fans, drapes, privacy, notifications and thermostat settings. A standout feature, the “green button,” allows guests to opt into the hotel’s conservation program with the touch of a button. From a design standpoint, the glass touch surface offers a blank canvas for the designer wishing to customize a look with colors, fonts, images and functionality.

Judging criteria included 1) efforts to create a product or space that is environmentally innovative and aesthetically pleasing, 2) products that promote sustainability, including energy savings, lighting, flooring, fabric, wallcovering, seating, case goods, etc. and 3) resource efficiency and recycling and waste management within the development and manufacturing process. To learn more, call 860/739-4468 or visit inncom.com TODAY!

NATIONAL ALLERGY ASSISTS TV PROGRAM

National Allergy has been in business for more than 20 years providing doctors and individuals with eco-friendly allergy solutions for sufferers of severe asthma and allergy to make home and office environments as allergen-free as possible.

During its second season, “Extreme Makeover: Home Edition,” the hit TV show, contacted National Allergy to provide allergy products for a family whose daughter suffered from many breathing and heart issues. Without hesitation National Allergy provided Quality Protective Bedding for her mattress and box spring, an air purification system for her bedroom, and many of the environmental controls she needed to live in an allergen-free home. We believe that rewarding experiences such as this can translate to the hospitality industry, and we are excited to give hoteliers and guests the opportunity for healthier living on their journeys.

With 16 years of OEM experience designing and manufacturing encasings and our close relationships with top asthma programs, our encasings have been used in numerous clinical trials around the country. Recently, the US Army contacted National Allergy to supply various facilities with protective bedding in preparation of a potential bed bug attack. Learn more by calling 877/627-8775 or visiting nationalallergy.com/cs.

CHEMICAL-FREE CLEANING THE ACTIVEION WAY

Ramada’s busy London Gatwick hotel successfully uses award-winning Activeion technology following extensive trials of the Activeion Ionator EXP™ cleaning device. General Manager Tony Fletcher was enthusiastic. “We would recommend the Ionator for use in hotels. We have used the ionized water from the Ionator to clean washroom ceramic surfaces, to remove stains from carpets and upholstery and to clean work surfaces in the bar. Our experience suggests that the Ionator would also be good for cleaning in health clubs, particularly tile and floor sur-

faces,” states Fletcher.

For a hotel whose core values include environmental responsibility, the Ionator fits in perfectly. Conserving resources, preserving natural habitats and preventing pollution are key goals within the Wyndham Worldwide organization. Reducing energy consumption, water and energy usage, improving air quality, minimizing waste and implementing sustainable procurement practices are main areas of focus across the brand. With the Ionator, the Ramada London Gatwick is well on its way. See activeion.com or call 866/950-4667 to learn more.

GREEN AS A STATUS SYMBOL: WHY INCREASED PRICES MAY INCREASE SALES


A commonly heard, and personally experienced, critique of the sustainability movement is the relatively high cost of green products compared to traditional products. I can spend 99 cents on a bottle of shampoo that cleans my hair, but has 25 ingredients listed on the back, most of which I have trouble pronouncing let alone knowing what they actually are or what effects they will have on my health. Or, I can purchase a bottle of green shampoo made from significantly fewer and easier-to-identify ingredients, but it will cost me ten times as much. The significantly higher price of green products inhibits my and other consumers’ ability to purchase them, but more importantly it creates a divide between consumers that are able to purchase green goods and those who are not. The sentiments associated with this divide are often carried over into the sustainability movement as a whole giving it an exclusionary, or even elitist, vibe. It seems the simple answer would be to find a way to make green products cheaper.

With that in mind, I began doing some research into the higher prices associated with green products, expecting to find reasons such as higher quality ingredients, organic ingredients, certification fees, fair wages, carbon off-setting, etc. Not surprisingly, I did find all of these reasons, but I also came across a September 2009 National Post article titled “Consumers attracted to status of ‘green’ products more than benefits, research suggests.” The gist of the article, and one of the conclusions of the research, is that consumers are willing to purchase green products, even those seen as inferior to traditional products in quality, at a higher price, but not when the price is lowered.

Why? Because of the social status associated with the sacrifice of paying a higher price for a product for the good of the environment. The research indicates that this status motive declines when the price of the green product is lowered because the element of sacrifice no longer applies. These results are not only interesting, they also provide some very valuable insight into consumer behavior that could, in theory, be used to promote the sustainability movement and increase demand for green goods.

In general, I do not care what a person’s motives are for making sustainable choices, as long as they make them. Any improvement is an improvement no matter the reason for it. However, pricing green goods in a way that encourages their purchase because of the status associated with them will inevitably exclude certain demographics, furthering the exclusionary tendencies seen by some in the sustainability movement. Environmental concerns, although undeniably important, only represent one third of the sustainability movement. A focus on the other two thirds, social and economic concerns, is
equally as important to achieve true sustainability. While a higher price on green goods may indeed have environmental benefits, the implications of ignoring social equity and inclusiveness issues on the larger sustainability movement need to be considered.

**FLAT-SCREENS GONE GREEN**

Television sets rank among the most-used appliances in America. The US Energy Information Administration estimated that we used 101 billion kilowatt-hours of power—7.3% of our total residential electricity usage—watching the tube. Meanwhile, new technologies allow us to watch our favorite shows in big, bright, real-to-life pictures. But not all flat-screen televisions are equal, energy-wise. Here’s how to choose the most energy-smart new set—and get the most from your current one.

**Knowing the Technology:** The amount of power a television uses is influenced by three variables: screen size, technology type and picture brightness, according to CNET.com. In general, a larger screen will consume more power than a smaller screen.

The most prevalent flat-screen technologies are plasma and LCD (liquid crystal display) televisions. In terms of energy efficiency, “LCD really dominates, then plasma and then projection units,” says Katharine Kaplan, EPA team leader for Energy Star product development. LCDs are also household favorites—representing 80% of television sales—and many of those sets are in the 40” range.

LCDs use up to half the power of plasmas, assuming the same brightness level. Some LCD televisions also use LED backlights instead of fluorescent lights, saving even more energy. LCD-backlit LCDs are the most efficient type of flat-panel television available today, according to CNET, although the actual savings over a standard LCD usually amounts to less than $20 per year.

Plasma televisions generally use the most power. A 50” Samsung plasma television, for instance, will use more than 260 kilowatt-hours per year, based on a five-hours-a-day schedule. A comparable-sized Samsung LCD will use about 190 kilowatt-hours per year. But do your homework, and you can find 60” LCDs that use under 100 watts.

Another new technology, DLP (digital light processing) can also be energy efficient when it uses LCD light bulbs. But most DLPs come in sizes over 60”, and use 200 to a whopping 400 kilowatt-hours per year.

A new technology—called OLED, or organic light emitting diode—promises to top energy-efficiency charts, be the most economical choice and have the best picture quality once it becomes widespread. “People have been waiting for it because it offers the promise of incredible efficiency and a fabulous picture,” says Kaplan. Currently, OLEDs come in screen sizes of 20” and less. “It’s a technology to watch,” she says.

**Take It Down a Notch:** No matter what model of flat-screen you buy or own, you can tweak the settings to save more energy. Many TVs arrive adjusted to the brightest setting to make colors and images pop. This consumes an unnecessary amount of power and isn’t ideal for picture quality.

Adjust the settings to match room lighting, and you’ll slash power use while still getting good picture quality. Some newer flat-screen models may have “energy saver” modes that auto-matically adjust backlighting.

Flat-screens also consume power in “standby” or “off” mode, when the television is ready to receive a remote control signal. Energy Star (version 4.1 and version 5.1) requires certified devices to consume less than one watt of power in standby mode. Additionally, new Energy Star requirements state that the lowest energy-consuming sleep mode must be the default setting for shipment.

Considering buying new televisions? Shop the list of Energy Star-qualified televisions, which all use about 40% less energy than standard units.

**LITTLE CABLE BOXES CREATE BIG ENERGY DRAIN**

Your cable set-top box/DVR controller is far more expensive than you probably realize. New research by the Natural Resources Defense Council finds that cable boxes use more electricity than almost any other appliance in the typical American home, in some cases even exceeding the electricity needed for air conditioning!

A single high-definition cable box and DVR combination uses an average of 446 kilowatt-hours per year. That’s more electricity than it takes to run a 21-cubic-foot energy-efficient refrigerator. And with more than 160 million cable boxes in use in the US, that adds up to $3 billion in electricity annually, more than the entire state of Maryland uses in a year. And fully 66% of that power is wasted. Having several cable boxes can cost a household upwards of $10/month in extra electrical fees. And while the report focuses on cable boxes, one presumes that the same would be true for satellite dish systems.

The problem is that the tuners and hard drives in cable boxes and DVRs are always on, even when you’re not watching TV. It’s largely because of the manufacturers’ design response to the way cable networks are designed in the US. Totally unplugging a set-top box and then reconnecting it results in a long wait while the box starts up and “repopulates” its information about channels and schedules.

Interestingly, the New York Times reported that when the California Energy Commission asked Cisco Systems, one of the major manufacturers of set-top boxes and DVRs, why their systems use so much electricity, Cisco responded that no customers had asked them to use less power.

There are ways for cable companies and set-top box/DVR manufacturers to reduce the power consumption of their equipment. Some cable boxes can be “put to sleep” where they consume 50% or less of their normal power (they almost never turn them all the way off). This is common in Europe but not in the US. The US Environmental Protection Agency’s Energy Star program is tightening up the energy requirements for cable boxes and will limit power consumption of cable boxes with the Energy Star rating to 29 kWh/year by the year 2013. But that will only apply to new cable boxes.

The NRDC report provides a lot more detail. But those who subscribe to cable know there’s very little choice in cable boxes. But you can contact your cable or satellite provider as well as the box manufacturer to insist they provide set-top boxes that use less power. We can’t let them say “no one asked” again.
Note from GHA: To slow the energy drain, TV sets, DVRs and cable boxes can all be plugged into a power strip with an on/off switch so that all can be fully turned off when not in use.


HELLO COMMERCIAL ZONE!

Hotels are finding ways to support the green movement and reduce waste. ALLY MEMBER Commercial Zone® Products joins in those efforts by offering a new guestroom recycling bin. The attractive stainless steel InnRoom Recycler with two half-moon liners is the perfect size for guestrooms and easily fits under desks or bathroom vanities. The handy extended lip on each liner makes emptying the bins convenient. Decals provide the option to customize each liner.

For more than 40 years, Commercial Zone® Products has been manufacturing waste containers to recycling centers to the original oxygen-restricting Smokers’ Outpost Cigarette Receptacles. Our products are environmentally friendly, made from at least 25% recycled material and are packaged in recycled-cardboard cartons.

Our goal is to provide aesthetically pleasing and durable products designed for a long service life to be used indoors or outdoors. We offer bins to encourage recycling as well as litter solutions in various sizes, colors and materials; perfect for lobbies, conference rooms, business centers, spas and pool areas. We understand everyone has different needs, so we can provide custom colors or decals. By keeping waste out-of-sight and hidden from public view, Commercial Zone’s products provide the cleaner appearance that your guests expect. Learn more by calling 800/782-7273 or visiting commercialzone.com TODAY!

SOLAR UPDATES MARINES’ ARSENAL

A company of US Marines recently conducted a remarkable three-week patrol through southern Afghanistan, replacing hundreds of pounds of spare batteries in their packs with roll-up solar panels the size of placemats to power their battle gear. By allowing the troops to recharge their radios, GPS devices and other equipment, the green technology freed the Marines from constant resupply by road and air. And by carrying fewer batteries, they carried more bullets.

The Marine Corps is addressing a paradox confronting military planners: Modern US forces are more lethal than any in history, but they also gobble up more energy. That lengthens vulnerable supply lines and overloads soldiers and Marines in the field. This is the first combat unit to be equipped with a new package of portable, front-line solar gear developed by Navy scientists.

Navy Secretary Ray Mabus has pushed biofuels for fighter jets, hybrid-electric drives for Navy ships and renewable-energy systems for Marines on the move.

Batteries make up as much as 20% of the weight of the 100 pounds of gear a Marine infantryman typically carries. A Marine uses four times as much fuel as his counterpart did in the early 1990s—due to, among other things, laptops and other electronic gear that use electricity pumped out by portable generators.

Some 30% of all fuel trucked into Afghanistan—at great risk—goes to power those generators, at a time when roadside bombs remain the most dangerous weapon faced by allied troops.

In less than nine months, scientists cobbled together a solar-and-battery combination small enough to be transported on Humvees, big enough to power the gear at a combat outpost and rugged enough to withstand tough field conditions. Each can be unfurled to recharge equipment at the base or on the march. Keeping extra batteries out of packs means the Marines can move faster and farther than before. Fuel use is down at the company’s patrol bases, because the solar equipment replaces generators.


IN TUNE WITH NATURE

Following is a playlist of the best environmental songs recorded in the past 60 years chosen by two of gb&d magazine’s design minds—Ron Culver and Ron Harwood. Mr. Culver was chief percussionist of the Vancouver Philharmonic. Mr. Harwood was the manager of blues artist Sippie Wallace and the founder of the American Music Research Foundation. Whether you’re young or old, into folk or hip hop, musical artists continue to lead us toward a more sustainable society. Here’s the playlist:

1. “Don’t Go Near the Water” by the Beach Boys from surf’s Up, 1971. The group’s warning against polluted water—caused by humans—is juxtaposed brilliantly against its popular surf rock.

2. “(Nothing But) Flowers” by Talking Heads from Naked, 1988. Facetious wordplay laments an apocalyptic world where all the great things of the past—like fast-food restaurants—are gone.

3. “With My own Two Hands/War (Live)” by Ben Harper from Live at the Hollywood Bowl EP, 2003. Two parts empowering and one part political, the activist songwriter performs his sprawling reggae tune and inserts a snippet of Bob Marley’s “War.”

4. “Plus Rien” by Les Cowboys Fringants from La Grand-Messe, 2004. Known as much for environmental lyrics as their Quebecois style, here the band tells the tale of a man who can’t even remember a clean, healthy planet.

5. “The Blue Light of the Underwater Sun” by Moby from Every Time You Touch Me, 1995. This chaotic piece of little-known electronica begins with the short narrative of a dolphin that enjoys his tranquil life—until it gets trapped in a net.

6. “Rhinestone Eyes” by Gorillaz from Plastic Beach, 2010. Damon Albarn’s repertoire of lyrics is full of impassioned imagery, like this line: “Drive on engines ’til they weep / with future pixels in factories far away.”

7. “The Dream Reborn (My President iz Green)” by Doo Dat single 2009. This young hip-hop artist uses blunt, 21st-century...
TOP 10 TIPS FOR BRAIN-FRIENDLY MEETING FOOD

Food is an excellent tool to help produce effective meetings. Andrea Sullivan, a speaker at the International Association of Conference Centers annual meeting, focuses on “brain foods” that help attendees focus, stay on task and stay energized throughout the day. Her top 10 menu suggestions are:

1. **Breakfast:** Minimize white flours and sugars at breakfast that will play havoc with blood glucose levels throughout the day. Instead, provide complex carbohydrates, low fat, low glycemic-index foods, with plenty of protein options and whole-some sugars like honey.

2. **Lunch:** Keep it light. If meeting objectives require alertness and clear thinking, stimulate the brain with a high protein/low carb balance. Serve chicken, fish, vegetables and fruit. If the meeting objectives are for team building or social networking or if the meeting may be stressful, serve complex carbs to relax the brain. Whole grain pasta or brown rice casseroles comfort while providing sustainable energy.

3. **Basic Rules for Breaks:** Keep it low-glycemic, while providing healthy treats with complex carbs, fruit and some protein such as cheese or nuts.

4. **Afternoon Break:** Lots of fruit and some protein will help counteract afternoon brain drain and mental fatigue.

5. **Dinner:** Now is the time for comfort foods that relax the brain. Red meats, turkey, bananas, whole grains, beans and dark chocolate are some options.

6. **Remember to FLOSS:** Choose Fresh, Local, Organic, Sustainable and Seasonal.

7. **Drink Me!** Include a sign like this on your water containers, as hydration is essential for a healthy brain.


9. **High on Omega 3:** Omega 3 reverses memory loss and eases depression.

10. **Coffee makes you crash.** Mix in tea and dark chocolate to limit those negative effects.

**IS YOUR LAUNDRY ROOM DESIGNED FOR MAXIMUM EFFICIENCY?**

Like any other aspect of a hotel’s business operations, laundry needs to be handled efficiently and with quality care to ensure the best experience for guests. A well designed hotel laundry room can provide efficiencies that minimize cost while maximizing through-put. Whether you’re retrofitting your existing facility or planning a laundry room for a new hotel, there are solutions available to ensure the best outcome.

Staffing requirements for laundry operations depend on occupancy rates. In most 200-room hotels, a laundry staff would consist of two to three individuals. At a minimum, you’d want to have a laundry supervisor, as well as attendants who will sort linens, wash, dry and iron, if needed. If your hotel isn’t staffed properly, you could lose as much as 50% of production per day.

For a hotel of this size, your laundry room should be no smaller than 500 square feet. There needs to be enough space for employees to maneuver around each other, move carts without bumping into machines and other employees, and for folding or ironing. You’ll also want to make sure you have room for multiple machines, and storage facilities for linens and cleaning products.

Entry into the laundry room should be via a service entrance if your hotel allows for it. A second door option at the alternate end of a facility would help increase efficiency. Ideally, your staff would use one door to bring in dirty linens and use the second door for clean linen distribution. The type of floor you choose for your laundry room also plays a role in helping your staff perform their duties more effectively and efficiently. Typically laundry rooms have concrete or vinyl composition tile (VCT) because they are least expensive. However, those materials are less forgiving on the body. If your staff is taking off work for backaches or achy knees, it can become an issue for you as the owner and impact operations. If your budget allows for it, consider a healthier option. In addition to being better for the body, the choice should be durable and environmentally friendly.

Storage for detergents and other cleaning items should be housed at the front end of the facilities, prior to reaching the machines. There should also be space for dirty linens to come into the laundry facility to be sorted.

**Machines, Folding and Storage Layout:** The number of laundry machines and how they are positioned in the laundry room is an essential component to having an efficient laundry operation. For increased flow and efficient production, most machines should be placed in the middle of the laundry area.

In a 200-room hotel, there should be at least two to three 60- to 80-pound washers that have a high-speed extract cycle. With a high-speed extract cycle, more water is spun out of...
the linens during the spin cycle. It’s less expensive to remove water from loads in the washer extractor than in the drying tumbler, thus the more water removed, the shorter the drying time. In addition, the laundry is not as heavy, which decreases labor for your staff.

You would want to match your washer extractors with the same number of dryers. To build on your energy efficiency, make sure your dryers are placed on an outside wall with appropriate sized air intake grates. By doing this, air flow is increased to the dryers, and less gas is used to dry the linens. In addition, if your laundry room is air conditioned, it will negate the cool air from being sucked into the dryer.

If placing the washers and dryers directly across from one another is an option, that’s best. It will help reduce labor on employees and flow easier when linens are moving from one machine to the next.

If you’re replacing older washers and dryers, it’s important to note that you will most likely see a 20% decrease on your utility bills because most new models are built with some form of energy-efficient technology.

Folding tables or the folding machines, as well as ironing, should be placed toward linen storage units, but at the end of the machines, toward the second door, if applicable. Sometimes we see folding tables placed in the middle of washers and dryers. This can cause traffic jams and slow production if carts and employees have to move around them to get to different machines. Once linens come out of the dryers, employees can usher the items down to the folding tables or folding machines. This also helps ensure the clean linens aren’t crossing paths with the dirty linens.

You’ll want to have at least 3 folding tables, or enough for each staff member. Having storage cabinets near these tables enables the staff to put away extra linens, while restocking housekeeping carts with guest linens needed for immediate room clean up.

Production is Key to Efficiency: As you can see, in the laundry room, high-efficiency equipment and operation methods can help your laundry operations become lean. Instead of viewing laundry as another housekeeping matter, try picturing it as a manufacturing operation that needs to be efficient and effective. Once you do that, you’ll see your operations running more smoothly and will notice all the benefits efficiency has to offer.


WATER SAVED IS MONEY EARNED

Going environmentally green can produce significant amounts of another kind of green—cash. Mo Khan, director of property operations at Houston’s 1,203-room Hilton Americas, said they saved more than $100,000 during the 11 months after their AquaRecycle wastewater recycling system went into service last year. The equipment and installation cost $160,000, and will have a payback of about 16 months.

In a hotel this large, guests generate a lot of towels. Frequent towel washing meant a lot of rinse water went down the drain, and fresh water required lots of energy to get it to the correct temperature to wash the next load. Khan purchased the AquaRecycle unit to put that wasted rinse water to better use. “Before, we used a four-compartment towel washer that handled 400 pounds in each section,” Khan said. “Then, after washing, the final rinse water went down the drain. Now 60-70% of that water is recaptured and pumped back to the recycle unit, where chemicals are removed as part of the filter cleaning process. Water is then returned to a holding tank where—with temperatures having declined from 160°F needed for cleaning to 110°F—it is held until needed again. Recycling that water leads to water, energy—and cash—savings.

“Reheating it back to the needed 160°F certainly requires less energy than warming fresh water with temperatures in the 50-60°F range,” he said. “That shortened reheating span accounts for some $42,000 in energy savings. That, plus $60,000 saved by not needing to buy more fresh water, is the core of over $100,000 in 11-month savings.” 12-13 months out now, the property has saved 90 million gallons of water.

The project earned Khan and his team an award for energy savings from Houston’s mayor. He’s now working on a system to recapture heat from the dryers after the cycle is finished.

Selwitz, Robert, “Water saved is money earned,” HospitalityWorldNetwork.com, April 18, 2011

RECYCLED SEWAGE WATER

NEWater is the brand name given to reclaimed water produced by Singapore’s Public Utilities Board. More specifically, it is treated wastewater (sewage) that has been purified using dual-membrane (via microfiltration and reverse osmosis) and ultraviolet technologies, in addition to conventional water treatment processes. The water is potable and is consumed by humans, but is mostly used for industry requiring high purity water.

Newater is also the term coined to describe the product from water reclamation using advanced treatment processes of microporous membrane filtration, reverse osmosis and ultraviolet
NEWater has become a key element of Singapore’s self-sufficiency policy. Water supply has been an issue since independence and reliance on Malaysian sources has long been seen by Singapore lawmakers as the country’s Achilles’ heel.

In 2011, when the 1961 Water Agreement with Malaysia expires, Singapore expects to have fully developed alternative water sources. By 2061, when the second water agreement with Malaysia expires, Singapore says it will be totally self-sufficient.

The Singapore Water Reclamation Study (NEWater Study) was initiated in 1998 by the Public Utilities Board (PUB) and the Ministry of the Environment and Water Resources (MEWR). The aim of this study was to determine if NEWater was a viable source of raw water for Singapore’s needs. NEWater and desalination were explored as means to reduce reliance on water imported from Malaysia, which has been a source of friction over the years. Also, while the Malaysian government is bound by two treaties to sell Singapore water until 2011 and 2061, it is under no obligation to do so afterward.

In 2001, PUB began an effort to increase water supplies for non-potable use. Using NEWater for these applications would reduce the demand on the reservoirs for potable water.

**NEWater is the product from a multiple barrier water reclamation process:** The first barrier is the conventional wastewater treatment process whereby the used water is treated in the Water Reclamation Plants.

The second barrier, and first stage of the NEWater production process, uses microfiltration/ultrafiltration to filter out suspended solids, colloidal particles, disease-causing bacteria, some viruses and protozoan cysts. The filtered water that goes through the membrane contains only dissolved salts and organic molecules.

The third barrier, and second stage of the NEWater production process, utilizes reverse osmosis (RO). In RO, a semi-permeable membrane filters out undesirable contaminants such as bacteria, viruses, heavy metals, nitrate, chloride, sulphate, disinfection by-products, aromatic hydrocarbons and pesticides that cannot pass through the membrane. Hence, NEWater is free from viruses and bacteria and contains very low levels of salts and organic matter. At this stage, the water is already of potable quality.

The fourth barrier, and third stage of the NEWater production process, acts as safety precaution. UV disinfection is used to ensure that all organisms are inactivated and the purity of the product water guaranteed. With the addition of some alkaline chemicals to restore the pH balance, the NEWater is ready for use.

At present, the total capacity of the three factories is about 20 million US gallons per day. About 6% of this is used for indirect potable use, which contributes 1% of Singapore’s potable water requirements of 300 million US gallons per day. The rest of the water is used at wafer fabrication plants and other non-potable industry applications.

The quality of NEWater consistently exceeds the requirements set by USEPA and WHO guidelines and is, in fact, cleaner than the other sources of Singapore’s water.

Source: www.pub.gov.sg

**ENERGY MONITORS PROVIDE KNOWLEDGE**

“It was a joke,” says the Kenosha, WI, resident, who runs a six-person person-service company. “The lady across the street would bring her electric bill to show me,” he says. Her bill, for a similar house, was less than half what he was paying.

Over the years, he replaced his windows, electric furnace and refrigerator with energy-efficient models. His local utility performed two energy audits. He added insulation. “I can heat the inside of my house with a lighter,” he says. But his bills remained high. That’s when Mr. Tassi became an early adopter of home-electricity monitors—using the new device to figure out exactly where the waste is in his home, and how he can reduce his bills.

Electricity monitors reveal specifics about energy usage and what it’s costing in real time. The device connects to a breaker box, from which it wirelessly transmits the information to a smartphone-like display unit. Moving around the property with the hand-held device, one can immediately see the difference that each light or appliance makes in their total power consumption and bill. They can also view the data on the web using software that comes with the monitor or free online tools such as Google Inc.’s PowerMeter and Microsoft Corp.’s Hohm.

Such knowledge could have a profound impact on power consumption. Property owners who can monitor their total electricity usage in real time cut their power consumption an average 9.2%, according to a survey of 36 studies by the American Council for an Energy-Efficient Economy. And when one has real-time feedback down to individual appliances, the savings were 12%.

They’re the concept cars of the appliance industry: smart refrigerators, washers and dryers designed to use digital technology to improve efficiency.

Katy Bachman, a travel agent who works from her house in Cape Coral, FL, bought a home monitor and downloaded a meter application onto her computer desktop, which she checks throughout the day. Seeing that her consumption rose when she turned on her electric oven to heat up an individual pizza for lunch, she bought a toaster oven and now uses it or her microwave as much as possible. She also changed her pool pump to run less often and keeps her air-conditioning a few degrees warmer. The result? A 20% reduction in her power consumption.

These monitors “should be as widespread as TV sets,” says Jon Wellighoff, chairman of the Federal Energy Regulatory Commission. He purchased a monitor for his house last fall and estimates he has cut his home power consumption—and his electricity bill—3% to 5% so far.

**TED, The Energy Detective:** The TED dashboard tracks several measures of electricity usage.

Installations usually require an electrician, because the base unit connects to a circuit-breaker box and nearby wiring. But once they’re up and running, the monitors are as easy to use as reading a meter.
Mr. Tassi, a former electrician, installed his system himself. He bought a TED 5000c, made by Energy Inc. (theenergydetector.com). The $240 device measures how much electricity his house is using and how much it is costing him, minute by minute, and wirelessly transmits the data to a handheld device.

After installing the system, Mr. Tassi started wandering around his house with the wireless reader. He turned on the dishwasher and the television and watched his power consumption increase. He also carried around a lamp and plugged it into different outlets. In most outlets, the lamp used two cents of power an hour. But in three outlets, the lamp was sucking up six cents. Those outlets, it turns out, had loose wires. “It was a super nothing fix,” says Mr. Tassi. But the real revelation was yet to come.

“I turned on the lights in the basement.” Mr. Tassi recalls. There were four fluorescent bulbs down there, and my electric usage went from 12 cents an hour to 86 cents an hour. I thought there was something wrong.” Mr. Tassi called Energy Inc.’s tech support, assuming he had installed his monitoring system incorrectly. After all, his energy auditors had praised him for using fluorescent bulbs that were more efficient than incandescent lighting. But the bulbs weren’t the problem. He took off the lighting fixture and noticed that the ballasts, tiny devices that limit currents in the circuits, were literally leaking electricity and had darkened the adjacent wood. For 20 years, this waste—and fire hazard—went undetected. “I always assumed that the fluorescent bulbs couldn’t be the problem,” he says, but the faulty fixtures “were costing me $100 a month.” He replaced the fixtures and bulbs with LED lights. Now he says he can turn on a half-dozen LED lights and his hourly power consumption “doesn’t even move a penny.”

Since September, Mr. Tassi has replaced most of his fluorescent and incandescent bulbs with LED lights, and he’s grown more vigilant about unplugging devices that aren’t in use. The handheld display stays in the kitchen, where he keeps an eye on how much power is being used. “I know my electricity usage should be about 10 cents an hour,” he says. “When it gets up to 13 cents, I know there’s something on somewhere that shouldn’t be.” He usually walks through his house looking for a lamp or computer that has been left on.

His most recent electricity bill was $85. And he’s now thinking of lending the system to friends and neighbors.

GHA’s Sep/Oct issue of this newsletter will focus on our Partner Members’ successful and not-so-successful environmental projects.

So, please gather the information needed to write the story, and send it in asap. Your experiences will help other green managers and properties make decisions on whether or not to proceed with particular green efforts. Its very important to share your successful green projects with other hoteliers. A less-than-successful or failure of a green project is just as important to share as a fully successful one—each provides an opportunity to learn.

Please include as many facts as you can—exact costs, vendor names, time spent, range of benefits, downsides, etc., so others can learn from your experience.

Your stories will be published in the next issue of this newsletter. They will also be posted online at Members Share (greenhotels.com/memshr.php). And, if possible, GHA will combine the ideas to produce a press release—which may bring important media attention to your property.

E-mail your story to green@greenhotels.com, and please put “green hotels” somewhere in the subject line so your e-mail will get past our spam filter. We’re excited to see your success stories! Send them soon, please!

GREEN IDEA

Santa Barbara County, CA, has a Car Free Vacation page online for discounted stays and travel. Can your area or property make a similar offer and gain new guests? Perhaps potential guests can also travel by train or bus at discounted rates. See santabarbaracarfree.org/package.htm.

FINAL WORDS . . .

I think that wherever your journey takes you, there are new gods waiting there, with divine patience—and laughter.

Susan M. Watkins, b. 1945, American writer