

Double Decker Lanes Cashing in on Solar Rays

by Don Bennet

Jim Decker of Double Decker Lanes in Rohnert Park is feeling good these days. He just installed a two million dollar solar energy conversion at his bowling alley and he believes he may have just saved a million or so dollars in energy costs over the long run.

Decker contracted with 3rd Rock Systems in Burlingame to install 1,428 panels covering 25,000 square feet of rooftop.

“As far as anybody knows, we are the first bowling alley in the country to convert to solar energy,” Decker said.

He said the conversion was a \$1.8 million project, but half of the cost was paid for by PG&E as part of a rebate program. In addition, Decker receives 10% tax credits from both state and federal governments.

“We figure payback to be ten years,” he said. “The project has a life expectancy of at least 30 years, so we should be sitting on free energy for the last 20 years of the system.”

He said historically, his annual energy costs have been about \$75,000. After factoring in transmission costs, which he still has to pay, he estimates a \$53,000 per year savings in energy costs. Prorated over ten years, with PG&E rebate and tax credits, he says he has “just traded one payment for another” over the first ten years.

“The beauty of this is that I’m locked in to one price, and eventually it will be paid off,” he said, pointing out that energy costs ten, twenty, and thirty years from now will most likely be substantially higher than they are today.

Double Decker Lanes celebrated its first year of operation under the new system on November 1, and Decker said he was pleased with the results so far. Decker has been recognized for his efforts by being selected as the recipient of the 4th annual Green Entrepreneur Award for this area.

The award is sponsored by SAFE-BIDCO and potential recipients are nominated by



State Assemblyman from businesses in each legislative district. Double Decker Lanes was nominated by Assemblyman Joe Nation. The awards were created to recognize small businesses that have implemented socially and environmentally responsible business practices.

Decker said that although the PG&E rebate program that enabled him to convert the bowling alley to solar is no longer in effect, there is a new program planned for 2006.

Adjust Irrigation Schedule for Wet Months

Source: City of Santa Rosa

Water is lost from landscapes because of evaporation (from soil) and transpiration (plant metabolism).

With this in mind, it’s no surprise that the “thirstiest” month for plants is July. Based on eleven years of weather data for Sonoma County, the following is an estimate of monthly water need of plants.

April = 50% of July’s need

May = 68% of July’s need

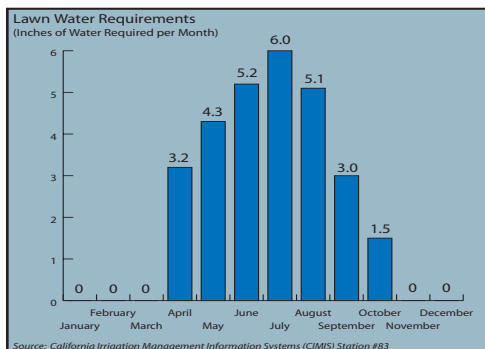
July = 100% (highest need)

August = 92% July’s need

September = 67% of July’s need

October = 35% of July’s need

November-March= 0% of July’s need



Adjusting irrigation frequently in response to weather can lead to water and money savings.

In addition to adjusting irrigation schedule, the installation of a rain shut off device can also improve overall irrigation management. These products are inexpensive ranging from

CONTENTS

Page 2

California WRAP Award winners

Page 3

Ways to Save on Gas

Going Solar In Sebastopol

Save Energy While at Work and Save Money

\$25-\$250, are installed easily, and can lead to further savings on your water bill.

In the coming months your landscape will need dramatically less water to look green and healthy. Make the appropriate changes with your timer. If you have a landscaper tell them to adjust your irrigation schedule. This will lead to saving in your water bill.

To get a free assesment of your water irrigation usage contact the BEA at (707) 565-7257.

WRAP Winners Reduce Waste While Reducing Cost

Source: California Integrated Waste Board

The California Integrated Waste Management Board recently announced the Waste Reduction Awards Program (WRAP) winners for 2005. WRAP provides an opportunity for California businesses to gain public recognition for their outstanding efforts to reduce waste. Ten businesses that operate in Sonoma County received the WRAP recognition this year. To receive the award businesses must fill out an application, which is judged individually, based upon its own accomplishments.

Flex Products, a division of JDS Uniphase, manufactures a color shifting pigment used in product security and consumer decorative products. Flex recycles approximately 90% of the waste generated. These activities have resulted in the diversion more than 1.5 million pounds of solid waste from landfill. These activities have also resulted in a combined impact to the bottom line of over \$510,000.

Huppe Landscape Company, Inc. is a unique landscape installation maintenance company in Northern California. Huppe Landscape Company recycles all greenwaste generated from its operations. Huppe Landscape Company uses mulching mowers in their maintenance of over 300 acres of turf on over 400 properties in nine counties. Huppe Landscape Company's plant trimmings are turned into mulch and sold. In the past twelve months, they have reduced waste destined for the landfill by 390 tons and saved more than \$340,000 by recycling their plant trimmings into mulch.

Korbel Champagne Cellars has produced sparkling wine and fine brandy for more than 120 years. Between June 2004 and June 2005, Korbel employees diverted approximately 11,000 tons of material from disposal. Everything from waste oils, solvents, paint and laboratory processing chemicals to all metals of various types, including aerosol cans are recycled. With all

their efforts over a ten-year period, they have been able to reduce their large container refuse to landfill costs by 50 percent. Korbel's waste reduction efforts saved them approximately \$670,000.

Save Mart Supermarkets is a retail chain comprised of 79 conventional supermarkets and 44 warehouse-style markets. Save Mart has two very successful closed-loop recycling operations: 1.) Bakery and produce trim are collected from each site and converted to compost that is sold in the retail stores. In addition, tons of compost has been donated to schools, churches, and city parks. 2.) In a cooperative program with Enviro-Bag, customers' plastic carry-home bags are collected by schoolchildren for fund-raising. Bags are recycled into Enviro-Bag brand trash and kitchen bags and subsequently sold on retail shelves. In 2004, this recycling teamwork recaptured 390,000 plastic bags. Save Mart's multi-faceted recycling efforts have reduced waste sent to landfills by over 75%. Between April 2004 and April 2005, Save Mart diverted approximately 47,000 tons from the waste stream, which in turn generated over \$2.3 million from avoided disposal costs and from recycling revenue.

MLB Homes has been a Sonoma County homebuilder for 20 years. Originally they specialized in custom homes, then, transitioned to the development of communities. They have built over 300 quality homes throughout the country. MLB's corporate office in Sebastopol and individuals on all job sites strive to reuse and recycle office supplies, including but not limited to paper clips, file folders, binders, paper, etc. In 2004, MLB Homes diverted 500 pounds from disposal, which saved them approximately \$375.

Safeway, Inc is one of the largest retail grocery companies in North America. The company has a composting program for green waste at all its stores in California. The company sees major cost savings resulting from reduction in waste disposal and landfill cost. Last year, in California the company diverted 210,926 tons from landfill. In addition, Safeway diverted other materials from landfills including corrugated cardboard, plastic, meat waste, metal, paper, and glass through recycling programs.

3M Optical Systems, a 3M facility in Petaluma employs approximately 100 people and manufactures a variety of products including privacy filters for desktop and laptop computers. 3M achieved its 2005 goal of reducing waste on of emission per 1000 pounds of good output basis.

Agilent Technologies implemented a highly successful reuse and recycling program for solid waste materials that otherwise would go to the landfill. During 2004 the program diverted over 994 tons or 80% of the solid waste generated.

Schurter Inc. is the North American distributor for Schurter AG, a certified Swiss manufacturer of electronic components. Schurter, Inc. minimizes its waste by concerted efforts to reuse or recycle as many materials as possible. Methods have been established to recycle packaging materials, paper, obsolete office equipment, obsolete inventory, etc. In addition, employees are given assistance in the recycling of materials from their homes.

Traditional Medicinals is a socially responsible and environmentally conscious company, providing high-quality botanical products with a balance of responsible business practices as its guide. The companies commitment to the environment is reflected through their use of recycled materials, company wide, resulting in minimal (less than 10 percent) contribution to the landfill, and increased company savings in excess of \$59,000 per year.

Whole Foods Markets, Northern California Region has 19 stores in Northern California. Whole Foods has over 165 stores in the U.S., Canada, and England. They are the largest certified organic supermarket chain in the U.S. Whole Foods Markets in Northern California composted 4,433 tons of material, recycled 1,200 tons of plastics, aluminum, and glass, and 2,393 tons of cardboard. The savings averaged \$6,000 per store per year.

Let WRAP know how your business is reducing its nonhazardous waste. The WRAP application cycle begins each April 1, continuing through June 30. To get more information visit www.ciwmb.ca.gov/wrap

Ways to Save on Gas

Source: County of Sonoma

With gas prices fluctuating businesses are examining their transportation costs. Use these tips to avoid getting beat at the pump.

1. Have your tire pressure checked. This is the cheapest and easiest way to increase fuel mileage. One underinflated tire can cut fuel economy by 2% per pound of pressure below the proper inflation level.

2. Pack light. Unnecessary weight in a vehicle reduces fuel economy.

3. Go the speed limit. For every mile-per-hour over 55 mph, the average car or truck loses almost 2% in gas mileage. The Department of Transportation estimates that if every U.S. driver observed highway speed limits, about 4 million gallons of gasoline per day could be conserved.

4. Smooth out your driving. Jerky starts and stops reduce mileage. Try to maintain a level speed by keeping enough following distance between your vehicle and others. Use cruise control whenever possible.

5. Plan your route ahead of time. Using an online map service that allows you to plot in multiple destinations can help you determine the shortest, most efficient routes and can prevent the need to backtrack.

6. Avoid long idling. Try to avoid heavy traffic. If stopped for long periods of time, turn off the engine. Starting the engine takes about the same amount of gas as idling for 30 seconds. Don't run the vehicle when parked to keep it cool in the summer or warm in the winter.

7. Buy gasoline in the morning. When the temperature is cold and gasoline is the densest.

8. Maintain your vehicle. Proper maintenance will increase a vehicle's fuel economy

9. Be energy conscious. Use the air conditioner only when needed. Roll the windows down when driving in town (less than 35 miles per hour) and roll them up and use A/C when driving on the freeway. Avoid using A/C when in stop and go traffic.

10. Car pool. Whenever two or more people or employees are going to the same location for the same meeting, training, or job, car pool and take as few vehicles as possible.

Save Energy & Money While at Work

Source: Pacific Gas & Electric Company

Lighting, office equipment, heating, cooling and ventilation account for 90% of a typical office building's energy use. Lighting uses more than 40%, office equipment such as computers, printers and copiers use 23%, and heating, cooling and ventilation use 25% of all the electricity in an office building.

During the day

- In general, thermostats should be set to maintain 78° F on hot summer days and 68° F on cool winter days, health and safety permitting.
- Keep windows and doors closed to prevent loss of cooled or heated air. Seasonally adjust blinds and coverings on windows that receive direct sunlight.
- Turn off unnecessary lights. Maximize use of natural light whenever possible.
- Minimize use of portable electric devices (electric heaters and personal fans).
- Turn off coffeemakers after use or by 10 am Transfer coffee to an insulated container.
- Have all computers set to "sleep" when not in active use.
- Ensure all printers and copiers are off when not in use. When possible reduce the number of copiers and printers in regular operation.

Off Hours

- Turn off office equipment, kitchen equipment, and lights.
- Shut down computers.

For more ways to save money by reducing energy expenditures visit, www.FYPower.org

Going Solar in Sebastopol- A Sunny Picture

Source: Sebastopol Chamber of Commerce

In the spring and summer of 2003, the Sebastopol City Council approved the installation of two 10 kW solar power systems installed on the roof of the Public Works building and the fire station. Since then, the systems have performed beyond expectation and have saved the city over \$10,000 while at the same time providing a clean source of electric power.

The two systems produce the equivalent of 55-65% of the city's electric power usage. The City of Sebastopol estimated a 14 year payback on the net cost of \$92,000 for both systems, but are now expecting to realize that savings in less than eleven years. When calculating the cumulative net savings that are used to pay off the annual financing of the capital cost, the city will only have a maximum of \$22,000 "out of pocket" expenses before that amount is fully paid off in the tenth year. If the City was not a public agency, they would have been able to take advantage of the federal tax credit that private property owners are entitled to when installing solar power and shortening the payback period even further.

In June 2004, the City provided funding to the West Sonoma County Swimmers Association to install a 17.6 kW system at Ives Pool. The net cost was \$63,000 and the expected payoff period is ten years.

The City Council has been very pleased with the installation and performance of its solar energy systems and acknowledges the extra benefit of reducing greenhouse gas emissions that would occur from the conventional production of electricity with natural gas. Annually, the city's solar power system reduces the CO2 emissions by approximately 13 tons.

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The Business Environmental Alliance (BEA) promotes the economic benefits of responsible environmental practices and provides resources to enable businesses to implement these measures.

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