

Where it's working: Some Case Studies

Public Golf Course in Orange County, California:
Replaced pump station and clubhouse lighting
Saved: 133,000 kWh, 1.81 kW demand per year or:
Approx. \$18,620.00 per year
Approx. 72 tons of CO₂ reduction

Public Golf Course in Kern County, California:
Replaced pump station and clubhouse lighting
Saved: 75,500 kWh, 7.76 kW demand per year or:
Approx. \$10,600.00 per year
Approx. 41 tons of CO₂ reduction

Public Golf Course in the Palm Desert, California area:
Replaced pump station
Saved: 325,000 kWh, 129 kW demand per year or:
Approx. \$45,500.00 per year
Approx. 176 tons of CO₂ reduction

Private Golf Course in Palm Desert, California area:
Replaced facility lighting
Saved: 91,000 kWh, 12.9 kW demand per year or:
Approx. \$12,740.00 per year
Approx 49 tons of CO₂ reduction

CARBONSAVE™ is a program designed specifically for managers in the golf industry to:

- Understand your facility's total carbon footprint and overall resource use.
- Calculate how much carbon your golf course is currently sequestering, offsetting the net emissions of the facility
- Develop ways to reduce the use of your resources in order to save money and reduce your overall carbon footprint

Besides improving the environment, CARBONSAVE™ makes good business sense. A golf club that implements the CARBONSAVE™ program could realize upwards of \$20,000 a year in savings. If every golf course in America signed on to the program, that could generate an estimated savings of almost \$4 billion each year.

CARBONSAVE™ is a combination carbon-emissions baseline and energy conservation analysis program for golf courses

Dr. Stuart Cohen and his team of Environmental & Turf Services (ETS) scientists are collaborating with Golf Resource Group (GRG), a leading golf course architecture firm, to target the carbon footprint of America's 4,000 square miles of golf courses and beyond.

The collaboration merges the scientific calculations of Dr. Cohen with the water- and energy-savings experience of Andrew Staples, president of the Phoenix-based GRG. Staples pioneered the first energy efficiency program for golf courses in the state California, a groundbreaking project that included 125 golf clubs.

About Dr. Stuart Cohen

ETS President Dr. Cohen has more than 33 years of experience in the areas of pesticides and toxic substances, has a Ph.D. in physical organic chemistry, is a Certified Ground Water Professional, and has extensive experience in environmental risk assessment.

About Andrew Staples

GRG President Andrew Staples has designed, built and consulted on more than 150 golf course projects throughout the world, including The Golf Club at Sand Hollow Resort in Hurricane, Utah; Desert Mountain Golf Club in Scottsdale, Arizona; and Fayetteville Country Club in Northwest Arkansas.



Introducing a program that will:

- Save you money
- Reduce your course's carbon footprint
- Help reduce our dependence on foreign oil

Brought to you by



and



What can CARBONSAVE™ do for you?

It can reduce your energy costs by at least 10%. What's more, our Resource Management Program will identify ways for your golf course to reduce overall carbon emissions and increase carbon sequestration through your turfgrass, trees, shrubs and natural grasses. It's a win-win program: you save money, and at the same time help reduce your course's carbon footprint.

Why does this matter?

Because reducing operating costs is more critical than ever before. And because the need to convene the International Scientific Conference on Climate Change in Copenhagen (2009) illustrated the global scope of the issue of carbon footprinting.

Regardless of your stance on the Climate Change issue, governments and utility companies are making historic adjustments to their business in order to address Climate Change and the global-warming issue. For better or worse, this issue will continue to be imposed on all of us. Therefore, CARBONSAVE™ will have applicability for any golf course on the planet.

Yes! Your golf course CAN save energy!

Our knowledge comes from real-world energy savings programs that have worked at golf developments throughout the United States. Our experience suggests a minimum of 10% savings is achievable under most circumstances, having shown results exceeding a 30% increase in efficiency.

Among the areas of savings opportunity:

- Irrigation pumping systems
- Central programming efficiency
- Cart charging protocols
- Lighting upgrades and controls

Understanding Resource Management

It is a systematic way of planning, organizing, implementing, monitoring and controlling resource use in a facility, with the aim of being an efficient user of these resources.

Does a golf course sequester carbon?

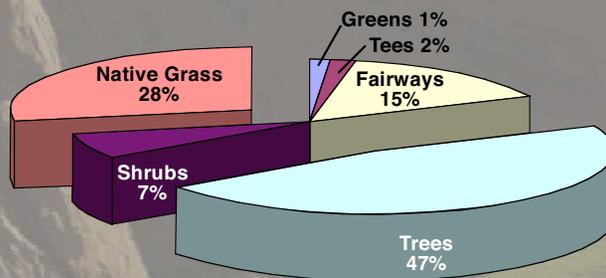
The answer is Yes! Carbon sequestration is only part of the equation. While all leading scientists agree that trees, turfgrass and natural grasses sequester carbon, in the end, most golf courses are net producers of carbon.

Environmental & Turf Services, Inc. (ETS) has developed a sound, scientific basis to estimate carbon emissions from a very wide variety of activities ranging from pesticide production and distribution to diesel fuel combustion to truck deliveries. These estimates are used to not only develop a science-based baseline for your footprint, it also uses the leading technologies to reduce your use while maintaining the high quality of your facility.

Myths about Energy Efficiency in the Golf Industry:

- A new pump station with the latest technology automatically saves energy.
- Irrigation scheduling and programming has no effect on energy efficiency.
- Variable Speed Drive always save energy.

Example of Golf Course Carbon Sequestration



Carbon Sequestered: 69 tons/year

How does CARBONSAVE™ work?

Step 1:

You commit to becoming as Resource Efficient as possible

Step 2:

You sign up for the CARBONSAVE™ program

Step 3:

Allow the CARBONSAVE™ experts to walk you through the process of establishing your baseline and total carbon footprint

Step 4:

Receive a full report that analyzes your course's energy use, carbon emissions, carbon sequestration, and net carbon footprint

Step 5:

Receive the benefit of annual dollar savings after recommendations are implemented

Program Investment:

Typical fees are \$9,500. Please call for an exact estimate.

Call now for a free, over-the-phone assessment of your facility.

Contact:

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CARBONSAVE

FOR GOLF

Working together to help Golf
Save Carbon, Energy and Money