

## Bowman Design Group Signal Hill, California

### Sustainable By Design

In just two years, Bowman Design Group not only met but shattered California's AB32 greenhouse gas (GHG) emissions goals for 2020 – and business remains strong.

In results verified by the California Climate Action Registry, Bowman slashed its GHG emissions by 65%. This result far exceeds the state of California's goal, which mandates statewide GHG emission reductions of 15% by 2020 and 95% by 2050 versus 2008 levels.

Bowman's president, Tom Bowman, set out to see whether a small business could meet the California emission goals and remain financially viable. After analyzing 2006 baseline data, the firm prioritized sustainability efforts and focused its actions on reducing car emissions and power consumption throughout the office.

The sustainability efforts produced measurable financial benefits. In just two years, Bowman Design Group saved 59% on fuel costs for the company vehicle, plus 29% on reimbursed mileage for business driving in employees' cars. The firm also enjoyed a 40% savings on electricity costs.

Bowman expects the firm to achieve an 80% reduction in greenhouse gas emissions by 2020 with continued implementation of its green business plan.



### Business Snapshot

Design and project management firm specializing in exhibitions for museums, tradeshows, briefing centers and high-profile public events

### Actions to Save Energy & Drive Clean

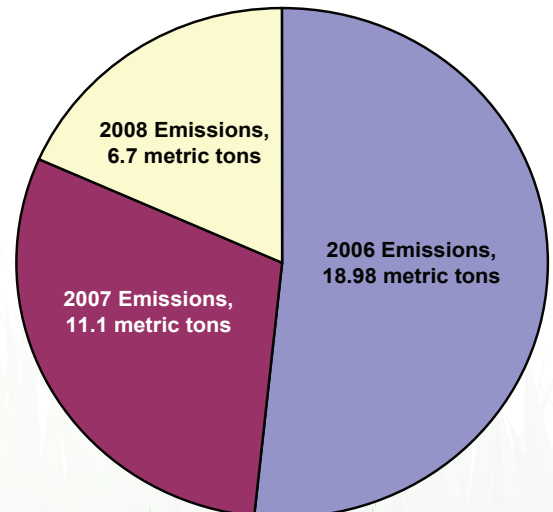
- Traded in company SUV for a hybrid vehicle
- Uses 100% recycled paper in the office
- Upgraded HVAC air conditioning system, at a cost of \$7000 for new equipment
- Encourages telecommuting and carpooling for employees
- Changed lighting to CFL bulbs
- Consolidated electrical office equipment

### Estimated Yearly

- **Cost Savings: \$4,910**
  - \$1370 savings on electricity
  - \$20 savings on natural gas
  - \$1450 savings on gasoline (company car)
  - \$120 savings on water
  - \$1530 savings on office equipment lease, maintenance and toner
  - \$420 on reimbursed employee mileage
- **Greenhouse Gas Emission Reductions (from direct and indirect emissions):**
  - 6.7 metric tons of CO<sub>2</sub>e in 2008, a 65% reduction from 2006 emissions

### Greenhouse Gas Emission Reductions

This chart from Bowman Design Group shows that they've reduced GHG emissions by 65% in 2008 from 2006 data.



### What Actions Did Bowman Take to Save Energy?

Bowman Design Group reduced electricity use by 27% after consolidating office equipment, eliminating “vampire power” (cutting power to equipment that sucks energy in standby mode), and replacing faulty air conditioning equipment with a more efficient model. They installed compact fluorescent lighting with free bulbs from their utility company. These changes yielded a 40% savings on electricity costs, totaling \$1370 a year.

### What Actions Did Bowman Take to Drive Less and Drive Clean?

Bowman traded the company SUV for a hybrid, facilitated telecommuting, and encouraged carpooling. Telecommuting and carpooling by employees saves 960 gallons of gasoline and 18,590 pounds of CO<sub>2</sub> annually. Combining client and supplier visits with commuting reduces business driving by employees 43%, reimbursed mileage by \$420, and saves 1,500 pounds of CO<sub>2</sub> annually. These changes cut fuel use in the company car by 63% as well. The firm also gives preference to trains and cars over air travel whenever possible.

### What Else is Bowman Doing to “Be Green”?

Water consumption, waste production and office supply purchases were also reduced during implementation of the green business plan. Bowman uses 100% recycled paper and is shifting to non-toxic cleaning and office supplies.

### What are the Results of Bowman’s Actions?

Since 2006 the company has reduced GHG emissions by 65%, gasoline use by 63%, employee driving by 43%, landfill waste by 45%, water use by 18% and increased recycling by 33%. Their results show rapid progress, while also cutting costs for electricity by 40%, gasoline by 59%, reimbursed mileage by 29%, water by 20%, and office equipment by 12%.

**Bowman Design Group** offers sustainability advice to their clients and the exhibition industry through workshops and a monthly column. They plan further improvements over time with window films, skylights, a cooler roof, and solar power systems.

PROUD PARTNERS INCLUDE:



STATE OF CALIFORNIA  
PUBLIC UTILITIES COMMISSION



Photo Credit: Aristei Photographs

"Our success demonstrates that relatively minor changes – if they're the right changes – can produce dramatic results without significant expense."

-Tom Bowman  
President of Bowman  
Design Group

Photo Credit:  
Bowman Design Group



Bowman Design Group replaced their old, inefficient HVAC system with a new unit (shown above). This new unit is more energy efficient and saves both electricity and money.

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