

## Arkin Tilt Architects Berkeley, California

### Leader in Design and Sustainability

Anni Tilt and David Arkin began their northern California based architecture firm with a commitment to both designing and operating sustainably. Their expertise lies in designing beautiful buildings using alternative construction systems including building with straw-bale and rammed earth, renewable energy systems, greywater, and non-toxic and recycled materials.

Winner of the Acterra Business Award for the Sustainable Built Environment, two AIA/COTE Top Ten Green Project Awards, and numerous design awards, their work has been published nationally and internationally for excellence in design and sustainability. Some of the projects by Arkin Tilt Architects include residential and commercial buildings, park buildings, religious facilities, and Eco-Resort planning and design, all using sustainable, eco-friendly materials.

In addition to their work products, Arkin Tilt Architects designed their office and its operations to be environmentally sustainable. With electric, biodiesel and ethanol cars and solar electricity, they are working to keep the office's carbon footprint small.



"Our office participated in the Bike To Work Day Company Challenge, finishing in third place in the small organization category for the entire Bay Area."

– Arkin Tilt Architects

### Business Snapshot

Arkin Tilt Architects is a northern California firm with extensive experience in alternative construction systems and practical experience in running a low carbon business.



### Climate Actions

- Installed 1.46 kW of photovoltaic panels and changes the angle twice each year to maximize energy production
- Uses electric, biodiesel and ethanol company cars
- Targets a 100% reduction in most of its projects
- Retrofitted all office lighting fixtures using SmartLights
- Swapped 90W incandescent lights with 16W compact fluorescent bulbs
- Replaced server with more energy-efficient model
- Uses a pellet heater in the winter, a carbon neutral heating source
- Provides indoor bike parking for employees
- Coordinate a yearly a bicycle maintenance event for all employees

### Estimated Yearly Savings

- 82 percent reduction in light energy, saving 8,700 lbs CO<sub>2</sub> per year
- GHG reductions of 5,000 lbs/year on computer server



Arkin Tilt Architects is testing a straw-bale wall on site. Straw-bale walls provide superior insulation and sequester carbon!

# Award Winning Actions

## What Actions Did Arkin Tilt Architects Take to Save Energy?

Arkin Tilt Architects used SmartLights, swapping 30 incandescent lights with compact fluorescent bulbs, which reduced the energy per fixture from 90 to 16 Watts, an 82 percent reduction.

Arkin Tilt Architects also replaced their server with one that uses less than 15 percent of the electricity their previous one used, which reduced their carbon emissions by about 5,000 lbs/year.

In addition to the installation of a 1.48 kW solar-photovoltaic panels above their office entryway, which also serve as adjustable awnings, the company also changes the angle of these panels twice per year. Changing the angle of the panels optimizes passive solar heat in winter and shade for cooling in summer, as well as increasing electricity output by 5 to 10 percent.

## What Actions Did Arkin Tilt Architects Take to Use Alternative Transportation?

Employees at Arkin Tilt Architects participated in the Bike To Work Day Company Challenge, finishing in third place in the small organization category for the entire Bay Area. Some employees who had not ridden in years are now regular bicycle commuters. Now everyone bicycles to work nearly every day, including owners David Arkin and Anni Tilt. Jobsite visits beyond biking distance are made in an Electric '70 VW Beetle, a Biodiesel '99 New Beetle, or an E85 Audi Wagon.

## What Actions Did Arkin Tilt Architects Take to Reduce their GHG emissions and Build Green?

They adhered to the Architecture2030.org challenge, requiring a 60 percent reduction in GHG emissions for new buildings. When feasible they achieve a 100 percent reduction, with net-zero energy use.

In 2011, Arkin Tilt completed construction of their first PassiveHouse project as well as a LEED certified green public classroom project.



"In most of our projects we target a 100% reduction, with net-zero energy use."

– David Arkin, Arkin Tilt Architects



Arkin Tilt Architects employees primarily use bicycles to get to and from work.

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