



Transportation Case Studies

Join your neighbors in saving energy and money

The Car(e) Free Family

THE CONNER NEWLAN FAMILY - SANTA BARBARA, WESTSIDE



The average 2-car family spends more than \$16,000 a year on gas, insurance, repairs and other car-related expenses. The Conner Newlan family spends \$1,200 – or less than 10 percent of that – and they say they don't feel like they're sacrificing any convenience, fun or adventure in the process.

It all started for Geoff when Henry David Thoreau took him to Walden Pond in ninth grade. The idea of "living deliberately" planted in him then has continued to grow through the years.

Geoff, his wife Mits, and their two young children live on the Westside in Santa Barbara and get around as "car free" as possible. They take their kids to school by bike, bus, and -- now that both kids can ride scooters -- by foot. Geoff takes their 4-year-old daughter to Starr King preschool three days a week on his way to work by bike or on MTD's Crosstown Shuttle. Mits takes their home-schooled 7-year-old son to HomeBased Partnership near Goleta by bike or bus, or sometimes they carpool with other families.

Up until mid-2009, the Conner Newlans were actually a two-car family, with a 2002 Mazda and a 1978 Mercedes 300D that ran on biodiesel. But when their Mazda lost its second transmission and the Mercedes was

finally beyond cost-effective repair, they decided to try going car-free.

Geoff is a downtown Santa Barbara family law lawyer who keeps his clothes at his office for client meetings and court appearances, so he is free to walk, ride his bike, take the bus or even skateboard almost everywhere he goes before and after work. When his trial schedule takes him out of town he grabs a rental car. Geoff can rent a well-maintained vehicle for about \$30/day a few blocks from his office – even picking it up on a moment's notice if he needs to.

Mits jumps on the Clean Air Express, and for \$5 per person round trip takes the kids to Ventura for play-dates with friends who live off of Hwy 126 past Victoria Avenue. The family takes the train to L.A. or rents a car for the weekend to go out of town.

Food shopping is done primarily at the Farmers Market downtown, and basic supplies come from the Isla Vista Food Co-op, where they are member-owners. Geoff and Mits even go on car-less dates, walking home after dancing at the Wildcat into the wee hours of the morning.

AAA estimates it costs \$8,121 to own and operate a new passenger car driven 15,000 miles a year (about 54 cents per mile factoring in depreciation, insurance, repairs, gas, licenses, taxes, and the like). The Conner Newlans estimate they spend approximately \$100 each month on transportation (bus passes, car rentals, gasoline etc.) Thus, the Conner Newlan family is spending less than 10 percent of the average \$16,000 that a two-car family might spend – and they say they don't feel like they're sacrificing any convenience, fun, or adventure in the process.

The 674 mpg Electric Bike

THE JOHN FAMILY - SANTA BARBARA, HOPE RANCH



Ivor John works downtown and often rode a bike to work— for the exercise and to reduce traffic and emissions. However, the 10-mile round trip bike commute was hard to do every day, and sometimes a suit was needed at work.

After seeing the electric bikes at Earth Day 2009, Ivor realized that he had found the perfect solution: a bike that would get him to work, with an electric assist that would make it so easy he could do it every day, allowing him to pedal more or less depending on his mood, energy level

and attire. Ivor checked out most of the electric bikes around Santa Barbara and decided to buy the Hebb, sold locally by Electric Star.

An electric bike, like a regular bicycle, is one of the most efficient transportation devices ever invented, but it also has convenience and speed that derive from the electric assist. Now his ride – door to desk – is about 20 minutes, the same as when he drives. Ivor’s bike gets the equivalent of 674 miles to the gallon in electricity used. He plugs it in to the grid at work, and at home he now has a solar PV system, so for half the day, at least, he’s riding on sunshine! In the last six months, Ivor has ridden over 1,000 miles this way.

Ivor’s bike costs 32 cents to charge the batteries for his 50 miles per week, which is around 20 times less than gas in a typical 20 mpg car. His bike also has almost zero costs for maintenance, and doesn’t require auto insurance.

Ivor’s family is dedicated to lowering their carbon footprint, but until electric transportation really comes of age, it’s a challenge to get this aspect to zero.

Ivor’s wife Jean drives a Prius hybrid and works out of the home, and she participates in a car pool to get daughter Jasmine to school every day. Jasmine and Jean also have electric bikes that they use for frequent leisure rides. As a family, they now ride about 3,000 miles a year on their electric bikes and carpool about 1,000 miles a year.

“Riding an electric bike is one of the

An electric bike is one of the most efficient transportation devices ever invented. Ivor’s bike costs 32 cents to charge the batteries for his 50 miles of travel per week.

funnest experiences imaginable” says Ivor. “With the new lithium ion batteries we can ride 20 miles on a charge, and it’s so easy. I think we will soon see a lot more electric bikes – we are on the verge of a major breakthrough with this versatile low-impact form of transportation.”

The EV Neighborhood

SANTA BARBARA, EASTSIDE

The Garcia Road neighborhood, near the County Bowl, has seen a burgeoning of Ford Think Neighborhood Electric Vehicles in the past two years. These zero-emissions vehicles can travel on streets with speed limits of 35 mph or less, and are great for traveling around Santa Barbara. Unfortunately, as with any older vehicle, mechanical problems are inevitable, and Ford Think mechanics are not easy to find. However, neighborhood resident



Steve Hahn has learned to fix most of their idiosyncrasies. Enabled by his mechanical skills, neighbors jumped on the EV bandwagon. With his assistant, Todd Jacobs, he helps maintain the fleet of six electric vehicles, plus others around town.

The One Car Family

THE COOPER LUBACH FAMILY - GOLETA

Lori Cooper and Don Lubach and their daughters Jane (11) and Camille (8) became a one-car family when a drunk driver crashed into and totaled their sedan in August 2008. Banking the small insurance pay-out, they've lived well using a single car, a fleet of bicycles, MTD, the Zip Car carsharing program at UCSB, and an occasional rental vehicle.

Don remarks that "everything about our area makes it fun and easy to switch out a car for a bicycle." He bikes an easy four miles to his job at UCSB, saving hundreds of dollars on parking. UCSB just won a "gold" award as a bicycle-friendly business from the League of American Cyclists. In fact, 9 percent of staff and faculty (420 employees) bicycle to work at UCSB, along with 49 percent of students (10,215 students).

Jane and Camille walk or ride to Hollister School in a group with two friends. They also help with bike-to-school days. Grandpa Bob Cooper also enjoys the bike lifestyle. He rides a bike for most errands and volunteers to pick up trash on the Obern Trail three days a week.

The whole family enjoys outings and errand-running using their long-tail "cargo" bike. The family cargo bike can carry 250 pounds, including long items such as surfboards and stepladders. The family bicycle fleet is maintained by Santa Barbara Bicycle Repair and its at-home service plan.

Don, who admits to being the most enthusiastic about a reduced car lifestyle, heads up a blog featuring bicycle camping adventures at www.s24o.com. He says, "rolling the family



bicycles from the garage loaded with tents and sleeping bags is liberating; no gas tanks to fill or camping reservations to worry about. After riding along our beautiful coast, a park ranger greets us with a smile at one of our many local campgrounds and assigns us their best camping spot, permanently reserved for short and long-term cyclists and hikers."



Super Cycling Seniors

GOLETA

Owen Patmor, 79, and his wife Doris Phinney, 67, each year individually put more miles on their bicycles than on both motor vehicles combined. They use their bicycles for recreation, vacations, commuting, and running errands. For the last several years they committed to using bicycles for daytime travels, for groceries and other shopping (using a bike trailer), medical appointments, haircuts, commuting to work, jury duty, etc.



On rainy days they take the bus. Their goal each year is to ride 8,000 miles. They are both retired and attribute bicycling with keeping them strong and healthy.

Driving On Sunshine

KEN RADTKEY - SANTA BARBARA, COYOTE ROAD



In June 2009, Ken Radtkey received his MINI E, which charges off the solar panels on his home. Now he's driving on sunshine and excited about his zero emissions electric car.

Ken Radtkey is a local architect who has been interested in electric vehicles since first driving a Ford Think in 2001. He was excited to hear about BMW's electric MINI test program, which put 450 electric MINIs in the hands of consumers for testing in real world driving situations. In June 2009, he received his vehicle, which charges off the solar panels on his home. Now he's driving on sunshine and excited about his zero emissions electric car.

The MINI E has a range of around 100 miles, so is perfect for his daily commute from his home in the foothills to his downtown office, as well as any client meetings or errands, including trips to Ventura. When he has to make the occasional business trip to Los Angeles, he uses the office car, a Toyota Prius.

The MINI E has been problem-free, and Ken marvels at how efficient and quiet it is. Recent studies show that the MINI E is three times as efficient as its gasoline equivalent, because electric motors process energy much more efficiently than internal

combustion engines. Ken especially likes the regenerative braking, which he calls "strangely satisfying -- as you decelerate you know you are adding back energy to the battery." The MINI E also has plenty of power as it accelerates on the freeway and there is continuous torque with no shifting needed.

The biggest drawback is that the car is a two-seater, and thus has a limited payload. As the car was converted from a regular MINI, rather than being specifically engineered as an electric car, the extra batteries take up the space where the rear seats were. Ken is happy to be adding to the real world knowledge of electric vehicles and knows that future electric vehicles are being designed with the batteries in the chassis or other more practical locations.

Ken loves the fact that there are zero tailpipe emissions. He remarks that "I live in a LEED platinum home of my own design that is attentive to indoor air quality with low VOC paints and furnishing. Now when I pull into my garage, no toxicity comes into the house from the car."



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