

## 2010 Tesla Roadster Sport Gives Driver More Torque for His Environmental Causes

By [SCOTT DOGGETT](#) November 20, 2009

Ask a Tesla Roadster owner why he drives one and invariably you'll be told it's for the environment.

Mother Nature, you think.  
Climate change. Polar bears.

And that's half true. Maybe even three-quarters true. But drive a Tesla Roadster - especially the 2010 Tesla Roadster Sport - and you soon learn about the other environment, the one few motorists know. Here are a few examples of what that environment looks like:



*In the next lane, at a stoplight on a road that skirts Stanford University, a smirking Corvette ZR1 owner revs his otherworldly 638-horsepower 7.0-liter V8. You twist the key in your ignition forward an eighth of a turn, which instantly switches the drive mode from Standard to Performance. The traffic signal changes, you and the 'Vette driver floor it. Three seconds later the powerful Chevrolet is occupying space in your rear-view mirror. Traction-control limitations. The Chevy salesman probably forgot to mention them to the now-frowning ZR1 owner.*

*Then there's the blue Infiniti G37 Sport 6MT with the close-ratio six-speed manual transmission and the short-throw shifter, one lane over on the 101 Freeway approaching San Francisco, Candlestick Park on the right. He's playful, as are you, and just like the Corvette driver soon he, too, is a shrinking part of the landscape behind you despite his best efforts to outpace and then just keep up.*

*And then there's the Miata owner, poor thing, taking a sweeping onramp as quickly as possible, white-knuckling it all the way and hoping his newer baby dressed in stormy blue mica paint doesn't lose traction and become roadkill. While he struggles, you race up behind him, drop back, race up behind him again, raise a hand to your mouth as if to cover a yawn.*

People who own Roadsters absolutely buy them for the environment: Mother Nature on the one hand, and it's amazing-how-truly-awesome-the-environment-is-as-seen-from-a-Tesla-cruise-missile on the other.



A few days ago the electron-fueled-auto maker let me drive the 2010 Roadster Sport Halloween-colored car pictured here from Tesla's Menlo Park, California, showroom near Stanford to anywhere I wanted to go as long as I returned it by 6 p.m.

That would be six hours after I stepped on the brake, turned the key in the ignition, let out the emergency brake, pushed the "D" button for drive, and headed toward [Lt. Bullitt's](#) clutch-destroying, air-catching San Francisco hills.

Most reviewers take the Roadster straight to rolling hills - "twisties," in the trade - to see how the car handles them when pushed really hard. Because I'd already unwound a 2008 Roadster on rolling stretches of L.A.'s fabulous Sunset Strip, I knew this quicker second-generation Roadster with an adjustable suspension not available on the earlier model would gobble up twisties like the Lotus that lurks inside it.

What I wondered about was how the battery-powered Porsche-killer would do on some of America's steepest city streets. After having a little fun with the drivers of the Corvette, the Infiniti and the Miata, it was time for me to get to work on San Francisco's Telegraph Hill.



### Anticlimactic

There you have it, in a word. Anticlimactic. I'd picked a really nasty piece of Filbert Street - one of the steepest navigable streets in the Western Hemisphere, with a 31.5 percent grade (17 degree angle) - and gave the Roadster Sport some juice at the foot of the hill. Up to the top it went without complaint.

It's like this: The Tesla has only one gear. Even if you want to go in reverse, one gear: What happens is the motor reverses polarity, which means you could go just as fast backward - 125 miles an hour - as you can forward. And you could do it sprinting to 60 miles an hour in 3.7 seconds. Driving that fast in reverse is not recommended.

But I digress. With only one gear I didn't have to shift. I only had to take my foot off the brake and put it on the accelerator. When I stopped near the top of the hill and started up again, I didn't have to drop a clutch and let out the emergency brake while simultaneously stomping on the throttle to prevent rolling backward as I would have in, say, my '91 Nissan 300 ZX Twin Turbo.

All I had to do was step on the gas, so to speak. And that's what's got to infuriate all the Corvette and 911 drivers who've ever decided to play footsie with a Roadster off the line. While they are popping clutches and shifting madly, trying to do it with the precision required to get their vehicles to perform to their full potential, all Roadster-driving grandmas and grandpas have to do is put the pedal to the carpet to unleash maximum thrust.



A kindergarten student could blow away a ZR1 driver his or her first time in a Roadster Sport. Probably a regular Roadster, come to think of it, because it'll sprint to 60 mph in 3.9 seconds while the ZR1 will reach that speed in 3.8 seconds - but ONLY if the Corvette is operated by someone who has mastered the clutch-and-stick work needed to do so.

One other thing I learned going up and down the dangerously slopy piece of Filbert Street: As I went down the hill, the Roadster's regenerative-braking system allowed me to recoup roughly 18 percent of the juice I'd spent on the way up. That doesn't sound like much, but it's much more than the roughly 1 percent the regenerative-braking system of a Toyota Prius recaptures.

### Twisties Calling

Because one of America's steepest streets gave the Roadster little trouble, I heard the call of the Marin Headlands on the north side of the Golden Gate Bridge and responded affirmatively. Plus, I'd yet to take any photos of the car and I knew I could get some beauties over there.

But before I tell you what happened in the Headlands, here's something to consider if you live in a place with mountains instead of a hilly city beside a bay: Because a pure electric car such as the Roadster doesn't require oxygen - unlike a vehicle propelled by an internal combustion engine - it won't become lethargic at elevation.



Indeed, whereas a gasoline-powered engine can become 30 percent less efficient at altitude, the Roadster's electric motor is just as spry as it is at sea level. If that Porsche Turbo driver hated you along the coast, he'll absolutely loathe you at 7,500 feet.

But, again, I digress.

The Marin Headlands is a vast, hilly area at the southernmost end of Marin County, just north of the Golden Gate Bridge. It's part of a protected wilderness playground that attracts visitors from around the world for its stunning views of the San Francisco Bay and especially that lovely

brownish-orange bridge at its mouth.

What the Headlands aren't known for are perfectly maintained roads, and some of them are dirt. I drove my Halloween-colored car on both paved and unpaved roads - and the car had nothing bad to say about either. That's because the 2010 model contains a suite of sound-deadening measures that include, for instance, pellets that are poured into a member of the chassis side rail and expand 5,000 percent during the adhesive heating cycle to prevent parts from rattling.

The Roadster's Yokohama Ultra High Performance tires on lightweight forged black wheels adhered to the paved corners as if they were coated with Gorilla Glue, squealing only when I floored the accelerator leaving a tight turn.

The Sport suspension setting, available only with the Sport options package, kept vehicle lean to a minimum. The rear-wheel-drive Roadster carries 65 percent of its weight over its back axle, which accounts for a certain amount of stickiness. The rest owes a lot of credit to the Roadster's traction-control system.

### Catwoman Sexy

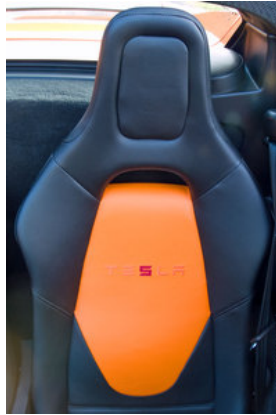
Everyone who's ever reviewed a Roadster has referred to it as sexy. Well, duh. But there's [Brooke-Shields](#)-girl-next-door sexy and there's [Michelle-Pfeiffer-as-Catwoman](#) sexy. My orange-and-black Roadster was the latter most definitely.

Selected options on the Roadster I tested included exterior clear-coat carbon-fiber accents (\$9,000) that are very visible in the accompanying photos and add greatly to the car's aggressive stance.

The executive leather option (\$6,000) that Tesla no doubt felt compelled to offer to match the gorgeous interiors of the Porsche 911 Carrera and Turbo models, and clear-coat carbon-fiber touches in the cabin (\$5,000), added enormously to my Roadster's attitude.

The Sport performance package (\$19,500) includes adjustable dampers, a higher density, hand-wound stator that produces a maximum of 288 horsepower (40 more than the standard Roadster motor), and the already mentioned 3.7-second 0-60 acceleration (two-tenths of a second faster than the lesser Roadster). Scotty Pollacheck, a high-performance driver for Killacycle, holds the quarter-mile record for a 2010 Roadster Sport, covering the distance in 12.643 seconds, in case you wondered how it might fare in the quarter-mile.

Pollacheck's time reminds me that the Roadster Sport is noticeably quicker in the 20-50 mph range than the regular Roadster. That speed range is where most manual-drive motorists would have to shift at least once, putting nearly all of them at a disadvantage.



The car I drove, as tested, bore a sticker price of \$155,850 with destination and delivery included. License and title fees and various taxes are extra.

### Ups and Downs

I put 92.9 miles on the Roadster Sport and returned it to Tesla with only about 50 miles worth of electricity remaining in its lithium-ion battery pack. The U.S. Environmental Protection Agency estimates the vehicle's range between charges at 244 miles, or roughly 100 more miles than my highly aggressive driving style permitted.

But it wasn't only that I drove like Racer X most of the time; I also did it with the top off, which at freeway speed can easily account for 10 percent inefficiency due to the car's compromised aerodynamics. And it didn't help that I drove solely in Standard and Performance modes. I'd have picked up at least 10 percent more distance in Range mode.

Moreover, it's good to remember that high-performance ICE cars that average 10 miles per gallon around town typically get around 3 mpg on the track.

Many of the changes between the 2008 Roadster and the 2010 Roadster occur in the cockpit. Gone is a tray, replaced by a glove compartment. Gone is a stick, replaced by buttons for park, reverse, neutral and drive; the stick's removal creates a narrower center console, which provides significantly more leg room.



The vehicle-display system was moved from left of the steering wheel to the center console. The move allows driver and passenger to view the display information, including the amount of oil saved driving this vehicle instead of one packing an ICE.

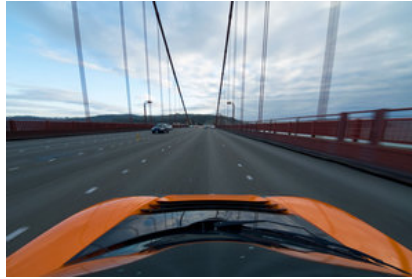
But, sunlight reflecting off the display made it hard to read much of the time. Use of non-glare glass should solve that problem permanently. Owners of 2010 models might want to add Surface Shields's anti-glare screen protection for the Apple iPhone 3G. The thin glare-cutting plastic squares are cheap and effective and don't leave a gummy mess when removed.

While few production cars can hang with the Roadster off the line due to the vehicle's instant torque, its power curve drops off significantly at freeway speed. It's here that Detroit's ridiculously powerful muscle cars wreck the Tesla driver's environment.

On the other hand, the Roadster is a cop-magnet. Exceeding the posted freeway speed limit on a regular basis is a sure way for a Roadster driver to rack up tickets and costly insurance points.

Should any of the issues raised here dissuade someone from buying a 2010 Roadster Sport or its slightly slower brother?

Not for a heartbeat. Consider the environment.



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