

# EARTH TALK™

Questions & Answers About Our Environment

Dear EarthTalk: Are self-driving cars good for the environment?  
 – Billy Shea, Boston, MA

You know the future is here when you see that the car beside you at a red light has nobody at the helm. That's already happening in California where a few companies (Uber, Google, Apple, Tesla) have begun testing autonomous vehicles on the open road—albeit with human drivers at the ready in case anything goes wrong.

Meanwhile, the major automakers have begun integrating autonomous driving technologies (blind spot detection, GPS mapping, assisted parking, etc.) into existing models, and will surely offer their own fully self-driving cars once lawmakers qualify them as street legal, maybe as early as 2018.

Proponents say that not only will driverless cars make our roads safer (as they can sense walkers, bikers, other cars and road infrastructure to avoid collisions), but will also be a boon to the environment.

Zia Wadud, who co-authored a study released earlier this year assessing the travel, energy and carbon impacts of autonomous vehicles, said the widespread adoption of the technology could reduce energy consumption significantly.

“Automated vehicles can interact

with each other and drive very closely as a ‘platoon,’” reported Wadud. “This can reduce the total energy consumption of road transport by four to 25 percent, because vehicles which follow closely behind each other face less air resistance.”

Beyond the platoon benefit, driverless cars can also shave another 25 percent off overall automotive energy consumption through more efficient computer-assisted ride optimization.

Yet another environmental benefit could be fewer cars on the road altogether.

“Your car could give you a lift to work in the morning and then give a lift to someone else in your family—or, for that matter, to anyone else. After delivering you to your destination, it doesn't sit idle in a parking lot for 20-plus hours every day,” reported MIT researchers Matthew Claudel and Carlo Ratti in a recent McKinsey.com article.

“By combining ride sharing with car sharing ... it would be possible to take every passenger to his or her destination at the time they need to be there, with 80 percent fewer cars.” Claudel and Ratti conclude that clearing four of five cars from the road would have “momentous consequences” for our cities regarding pollution, traffic, efficiency, and parking.

But Jason Bordoff of Columbia University's Center on Global Energy Policy argues in The Wall Street Journal that driverless cars hurt overall energy efficiency by undermining public transit.

“If you can work, watch a movie or sleep while in the car, perhaps you will take a car rather than public transportation or be more likely to drive for long trips.”

Bordoff added that autonomous



Google is among the California companies testing autonomous cars.

vehicles also “significantly expand the universe of potential drivers” bringing more people (and cars) onto the road and possibly increasing total vehicle miles travelled overall.

“Even car-sharing services could increase energy demand if the ease and convenience pulls people away from mass transit, walking or biking and into cars.”

Bordoff said he remains optimistic that autonomous vehicles can provide a net gain for society and the environment, but only if we are careful about how we implement the technology.

“To ensure that autonomous vehicles deliver economic, energy security and environmental benefits, we will need supporting policies targeted at those objectives, such as increased fuel-economy standards, investments in public transportation infrastructure, and R&D in alternative vehicle technologies.”

For his part, Wadud agreed with Bordoff that driverless cars could

actually be bad for the environment depending on how things shake out.

“Let's not be blinded by the driverless cars by saying they can solve everything – know that there could be risks and be careful about them,” he said.

“That said, I do hope that driverless cars will encourage car sharing and help reduce our energy use and carbon emissions. However, what will happen in reality remains to be seen.”

Contacts: “Help or hindrance? The travel, energy and carbon impacts of highly automated vehicles,” [www.sciencedirect.com](http://www.sciencedirect.com); Claudel and Ratti's “Full Speed Ahead: How the Driverless Car Can Transform Cities,” [www.mckinsey.com](http://www.mckinsey.com); Columbia Center on Global Energy Policy, [energypolicy.columbia.edu](http://energypolicy.columbia.edu).

EarthTalk® is produced by Roddy Scheer & Doug Moss and is a registered trademark of the nonprofit Earth Action Network. To donate, visit [www.earthtalk.org](http://www.earthtalk.org). Send questions to: [question@earthtalk.org](mailto:question@earthtalk.org).

## POST A-Z BUSINESS CARD DIRECTORY 503-244-6933

*Antoinette*  
 Antique and Estate Jewelry

Antoinette Sweet  
 GIA GRADUATE GEMOLOGIST  
 503-348-0411

7642 SW CAPITOL HWY  
[WWW.ANTOINETTEJEWELRY.COM](http://WWW.ANTOINETTEJEWELRY.COM)

CZ BECKER COMPANY  
**WOOD FLOORS**  
*A Family Owned Business Since 1982*

- Restoration Repairs & Refinishing
- State of the Art Dust Containment
- Installation of New Wood Floors
- Environmentally Friendly Finishes

503.282.0623  
[czbecker.com](http://czbecker.com)

CCB #48132

**KEITH DAVIS**  
**CONSTRUCTION, LLC**

Over 30 years experience

- KITCHEN & BATHROOM REMODEL
- HISTORIC & WHOLE HOUSE RENOVATION
- DECKS, WINDOWS, MAINTENANCE & MORE

503.329.9212 | [kdllc@mac.com](mailto:kdllc@mac.com)  
[keithdavisconstruction.com](http://keithdavisconstruction.com) | CCB#173455

**SELL US YOUR GUITAR**  
**SELL US YOUR GEAR**  
**HUMSTRUMDRUM.COM**

7645 SW CAPITOL HWY 503-452-8800  
**MULTNOMAH VILLAGE**

**Advertise in The Post!**

Contact Don Snedecor at  
[don@multnomahpost.com](mailto:don@multnomahpost.com) or call 503-244-6933.  
 Deadline is the 20th of the month prior to publication.  
 More info at [www.SWPortlandPost.com](http://www.SWPortlandPost.com).

**< HJAM FINANCIAL SERVICES, LLC >**

Hans J Manseth, CFP®  
 Certified Financial Planner™

‘LIVING & WORKING WITH CLIENTS LOCALLY SINCE 2001’

[hans@hjamfinancial.com](mailto:hans@hjamfinancial.com) • [www.hjamfinancial.com](http://www.hjamfinancial.com)  
 825 NE Multnomah Suite 1150 Portland, OR 97232  
 503.227.4817 ext. 3033 • 888.769.6532

Hans J Manseth, CFP® is a Registered Representative and Investment Adviser Representative of, and securities and investment advisory services are offered solely through, Equity Services, Inc. (ESI), Member FINRA/SIPC, One National Life Dr., Montpelier, VT 05604 (800) 344-7437. HJAM Financial Services is independent of Equity Services, Inc.

TC83373(0215)1

**DEIRDRE MCDONNELL**  
 Fresh Local Real Estate

Deirdre McDonnell | Realtor®  
[dmcdonnell@windermere.com](mailto:dmcdonnell@windermere.com)  
 OFFICE: (503) 497-5422  
 CELL: (503) 360-8939  
[www.deirdremcdonnell.withwre.com](http://www.deirdremcdonnell.withwre.com)

**YOUR NEIGHBORHOOD HANDYMAN**  
**20 years in Multnomah Village!**

**“Call Kenny!”**

Kenneth S. Morse CCB License #195820

503-939-5452  
[morseks@aol.com](mailto:morseks@aol.com)  
 Excellent SW Portland references

**Children's Book Illustrator**

**natepjensen.com**