

EarthTalk™

Dear EarthTalk: If you have an electric or plug-in hybrid car, you're paying for electricity rather than gasoline all or most of the time. How does that cost compare to a gas-powered car's cost-per-mile? And since the electricity may be generated from some other polluting source, does it really work out to be better for the environment?

— Kevin DeMarco,
Milford, Connecticut

When you compare battery to gasoline power, electricity wins hands down. A 2007 study by the non-profit Electric Power Research Institute (EPRI) calculated that powering a plug-in hybrid electric vehicle would cost the equivalent of roughly 75 cents per gallon of gasoline—a price not seen at the pump for 30 years.

The calculation was made using an average cost of electricity of 8.5 cents per kilowatt hour and the estimated distance the car would travel on one charge, versus a car that gets 25 miles per gallon and is

powered by \$3 per gallon gasoline.

Change any of those variables and the relative costs change. For example, substituting a car that gets 50 miles per gallon doubles the comparative electrical cost (though it still works out much cheaper than gasoline).

On the other hand, in some areas where wind or hydropower is wasted at night—just when the hybrid would be charging—the utility might drop the kilowatt hour cost to two to three cents, making the charge much less costly.

And don't worry that we'll run out of electrical power: A 2005 study by the U.S. Department of Energy's Pacific Northwest National Laboratory estimated that three-quarters of the country's current small vehicle fleet could be charged by our existing electrical grid without building new power plants.

And if all those cars were replaced by hybrids, it would eliminate the need for 6.5 billion barrels of oil per day, or 52 percent of current U.S. oil imports.

Regarding environmental impact, charging up your car with electricity from the grid also wins handily over filling up at the gas station.

In the most comprehensive hybrid study to date, released in 2007 by EPRI and the non-profit Natural Resources Defense Council, results predict that all greenhouse gases will be reduced as hybrids begin to penetrate the car market.

Estimated cumulative greenhouse gas reductions from 2010 to 2050, depending upon how fast hybrids take hold, range from 3.4 to 10.3 billion tons.

More than one half of our national energy grid is powered by coal, and in areas where hybrids are charged through coal-provided electricity, says NRDC, there is the possibility of increased levels of soot and mercury emissions.

However, charging up can be much less of a guilt-ridden affair where cleaner electrical sources like wind and solar are available. The website HybridCars.com points out that as more power plants are required to develop green power and emit fewer greenhouse gases, the



The all-electric Tesla Roadster sports car from Tesla Motors. (Flickr courtesy photo)

environmental and health benefits will further increase.

CONTACTS: Electric Power Research Institute, www.epri.com; HybridCars.com, www.hybridcars.com; Natural Resources Defense Council, www.nrdc.org.

SEND YOUR ENVIRONMENTAL QUESTIONS TO: EarthTalk, P.O. Box 5098, Westport, CT 06881; earthtalk@emagazine.com. Read past columns at: www.emagazine.com/earthtalk/archives.php.

MVP, Inc.
Volvo Service & Repair
OWNED AND OPERATED BY A VOLVO MASTER TECHNICIAN

VOLVO Paul Erickson
Office: 503-892-9405
Fax: 503-892-8763
E-mail: info@mvpvolvo.com

- Service
- Repair
- Performance

3530-A SW Multnomah Blvd., Portland, OR 97219
(across from John's Marketplace)
www.mvpvolvo.com

**POST A TO Z
BUSINESS CARD
DIRECTORY**
503-244-6933

**PRECISION HOME REPAIR
& DRYWALL**
JON A. GOSCH
Phone: 503-643-3517
Pager: 503-441-8940
website: <http://users.myexcel.com/precision1>
Quality work at affordable rates
Licensed • Bonded • Insured • CCB #77073

ROBERTSON PAINTING LLC

- Interior/Exterior
- Commercial/Residential
- Powerwashing
- Wallcovering
- Patina Stained Concrete

James Robertson
5425 SW Illinois St.
Portland, OR 97221
(503) 516-1223
(503) 293-6586 (Fax)
CCB# 169852 Insured • Bonded

Allstate
You're in good hands.

24-Hour
Customer Service

Claire Roshak
Senior Sales Associate
Willamette Valley Insurance Agency, Inc.

Allstate Insurance Company
2929 Sw Multnomah Blvd.
Suite 106
Portland, OR 97219
Phone 503-244-5244
Cell 503-880-0650
Fax 503-244-5245
ClaireRoshak@allstate.com
8:00 to 5:00 Monday-Friday

We dig the Southwest Portland Post!

The Historic
**St. Johns
REVIEW**

For advertising or subscription information contact
Gayla Patton
PO Box 83068, Portland, Or. 97238
reviewnewspaper@comcast.net - (503) 283-5086

Quality dentistry in a caring, relaxed environment.

JOHN SHAW DMD
FAMILY & COSMETIC DENTISTRY
503-246-2564

7717 SW 34th Avenue • Portland, OR 97219
(Multnomah Village • SW Capitol Highway & 34th Ave.)

SIGNS BY TOMORROW
SIGNS & GRAPHICS NATIONWIDE

The IDEA Today ... The SIGN Tomorrow!

- SIGNS
- BANNERS
- GRAPHICS
- MAGNETICS
- LETTERING
- LOGOS & MORE

503.244.0980
9220 SW Barbur Blvd. #111 - Portland - OR - 97219

skin by Corie Riser
Facials - Waxing - Microdermabrasion - Hot Stone Therapy

Bellezza Salon at Fordham Plaza
8565 SW Beaverton-Hillsdale Hwy, Suite 03
Portland, Oregon 97225
503.952.6710
www.corieriser.com
mention this ad and get \$10 off your first facial treatment!

design & consultation
maintenance & renovation

Smiling Gardens

971-275-4204
SmilingGardens.com
Cultivating healthy gardens for over 19 years

SUN DOG CONSTRUCTION.COM

Remodeling - Restoration
Basement / Attic Conversions
Additions, Kitchens, Bathrooms
Moisture / Dry Rot Repair
Home 4 Sale Prep/Inspection
Maintenance/Handyman service

Licensed
Bonded / Insured
CCB #173347

503.957.7559 AUTUMN SUN PARDEE
Owner / Contractor / Carpenter

Tom Leach Roofing
45 years roofing
your neighborhood.
503-238-0303
TomLeachRoofing@Comcast.net

CCB# 42219

Tree pruning & preservation
Tree & stump removals
Arborist reports & Consulting

MULTNOMAH Tree Experts, LTD.

Peter Torres, M.F.
ISA Certified Arborist (PN-650B)
CCB #154349
Southwest Portland, Oregon

(503) 452-8160
Peter@MultnomahTree.com
www.multnomahtree.com

ELLIOT WALTER
GENERAL CONTRACTORS

Elliot Walter
2545 NE 23rd Ave
Portland OR 97212
503.284.5926
503.282.1629 Fax
CCB # 95067

Announcements • Brochures • Commercials

Struggling with Sentence Structure?
Need help writing or editing copy?
Call Don Snedecor at 503-341-6859 (cell).
Or e-mail don@multnomahpost.com.
Hourly or project rate.

Programs • Publicity • Web
Newsletters • Press Releases • Print Ads
Communications • Fliers • Menus