

PHEVs: Successful Commercialization ASAP

September 4, 2008

Cascadia: Beyond Oil

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***PDF of latest presentation always at
www.calcars.org/downloads***



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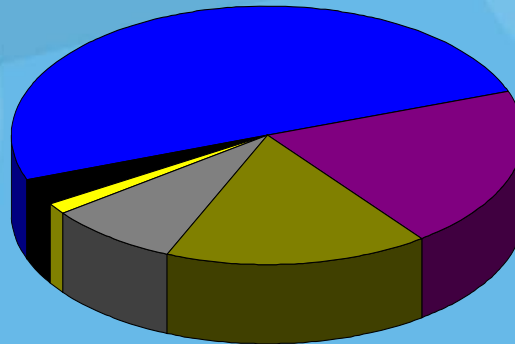
Electricity isn't just different—it's better than gas

Gasoline	Self Serve
Today's Car	3.00 ⁹ / ₁₀
Plug-In Hybrid	.75 ⁹ / ₁₀

1. ECONOMICS: CHEAPER --
electric miles at a quarter the cost



2. CLIMATE: CLEANER --
50% less CO₂, even on our half-coal national power grid



3. ENERGY SECURITY: DOMESTIC --
Only 1.5% of electricity comes from oil in US

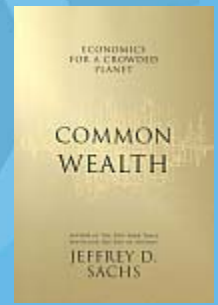
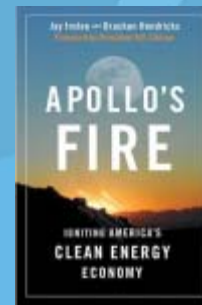
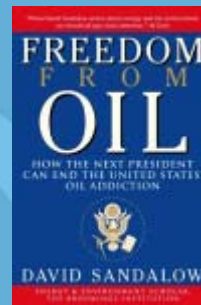
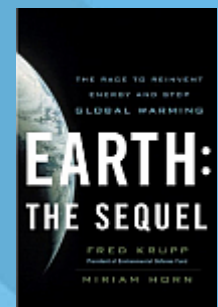
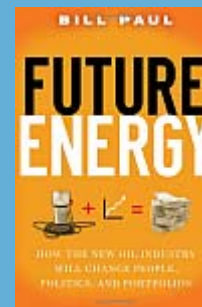
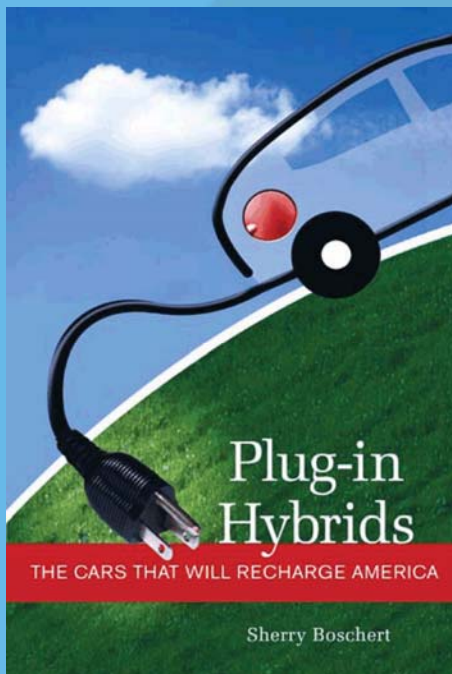


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2005-2008: 13 books with major focus on PHEVs



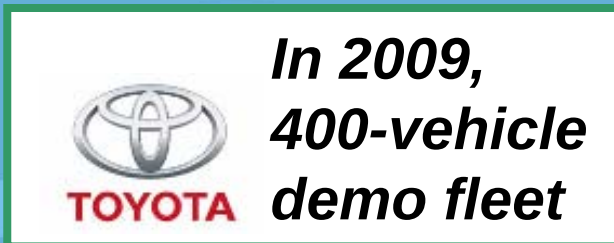
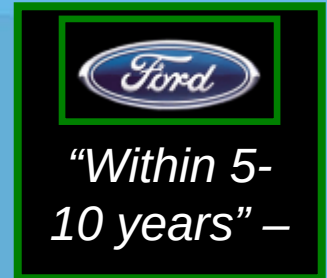
Order at www.calcars.org/books.html



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15+ carmakers interested; race to be first; few timetables
(CalCars "Carmakers" page tracks statements)



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What's taking so long? The wait for Version 1.0



**Without “The Brick” for \$3,995,
would we have the Razr & iPhone?**

Today’s \$1,000 plasma TVs started at \$10,000.



**Toyota: maybe 2010 –
why not in 2009?**



**Chevy Volt : production in 2010 --
now says 2009 demo fleets.**

**A dozen other automakers:
PHEVs a good idea – someday.**



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Presidential Candidates in Race on PHEV Policies



Nov '07 Googleplex



What if carmakers heard NOW that in early 2009 they'll get:

- Federal fleet order
- \$8K/PHEV 1st million
- \$4K/PHEV 2nd million
- Federal battery guarantee

*-- Plan from book/roadmap
"Freedom from Oil"
by David Sandalow
Brookings Institution*



July '08 Warren, MI GM plant



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Conversions to electrify world's 900+ million cars



**Chicago: F-150 PHEV, then
...transit buses etc.** hevt.com



**Mexico City: 1,000 Nissans
become EV taxis** clever-in.org



**8 million US RVs
now plug in a little**



**Partial power
for sedans**
poulsen.com



**Supplementary
drivetrains**
evpowersystems.com



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Andy Frank's company
efficientdrivetrains.com

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