

10 TALKING POINTS FOR PLUG-IN HYBRIDS

Why plug-in hybrids?

Today's hybrids are efficient because they don't idle, they recapture braking energy into a battery, and they use smaller engines. They're a great step forward—but they're still 100% gas-fueled. Use a larger, rechargeable battery and you add a second cleaner, cheaper, domestic energy source: **electricity.**

Spend less time—and money—at the pump

A plug-in hybrid (PHEV) is like having a second fuel tank you always use first. Fill up at home from an ordinary 120-volt socket, at a cost equivalent to **under \$1/gallon.**

No gas for short trips—same full range

If your batteries have a longer range than your commute, you'll almost never need gas. But if you forget to plug in, or take a longer trip, you have the **same range as always** from a gas engine—but in a clean, efficient hybrid.

Neo-cons and greens agree

PHEVs have been endorsed by an alliance of environmentalists and conservatives who see it as the **best way to cut our foreign "oil addiction."** Republicans and Democrats, endorsing the DRIVE Act, former cabinet members Shultz and Woolsey, and President Bush in his Advanced Energy Initiative have endorsed PHEVs. Use E85 and 100+MPG PHEVs become "flex-fuel" PHEVs getting **500 MPG** of gasoline (+ electricity + cellulosic ethanol).

Keep the earth cool

Even though coal powers half the nation's electricity, driving electrically produces **50+% lower greenhouse gases than a gas-only car.** This will only improve as utilities use cleaner, renewable energy.

Lead car-makers out of the wilderness

US car-makers missed the boat on hybrids; now they're playing catch-up. Seven car-makers are interested; GM plans 2 prototypes; Toyota intends to be first—but none have timetables. **PHEVs offer one company the chance to leapfrog its competitors.** We need commitments to production. Today's batteries are "good enough;" for PHEVs; they will improve and get cheaper by the time car-makers are ready for mass-production of Version 2.0 PHEVs.

PHEVs are already here

For 15 years, Dr. Andy Frank at UC Davis has converted **Ford/GM** cars and SUVs. **Daimler** is testing PHEV versions of the **Mercedes Sprinter** van. In 2004, non-profit CalCars.org converted the first Prius PHEV; others followed with dozens of cars. Not-yet-available conversions for consumers will cost \$10-\$20,000. That's why we need Toyota, GM and other carmakers to sell them!

Save money in the long run

In high volumes, car makers could sell PHEVs for under \$2,000-\$5,000 more than current hybrids. Just as car buyers pay for large engines or leather seats without expecting a return on investment, early adopters will pay extra for the PHEV "green feature." The bonus projections based on experience from electric car fleets show **PHEVs have a lower lifetime cost of ownership than any other vehicle.**

Send car battery power the other way

Recharged at night, PHEVs can send power to utilities in what's called **"vehicle to grid" (V2G).** PHEVs can be mobile generators to emergency centers and homes after disasters and outages, providing **low-emission 120-volt back-up power** for days. Pair rooftop solar with cars for backup!

Deploy the fleet

Fleet buyers are leading the way on many fronts. **Plug-In Partners is a national campaign for a large fleet buy.** Incentive programs can help buy down initial costs and additional warranties can reduce battery risk factors. **CalCars** is working to find ways to get demonstration fleets of "good enough to start" PHEVs on the road—followed by 10,000-100,000 vehicles.

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Drive cleaner, cheaper, domestic

