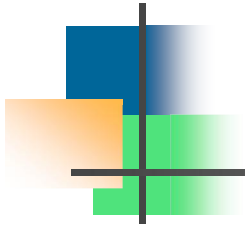


Plug-in Partners Campaign

Austan Librach
Austin Energy
Plug-In Partners





The Perfect Storm

q Economics

Cheap oil is running out

q Environmental

Pressure to curb pollutants from transportation

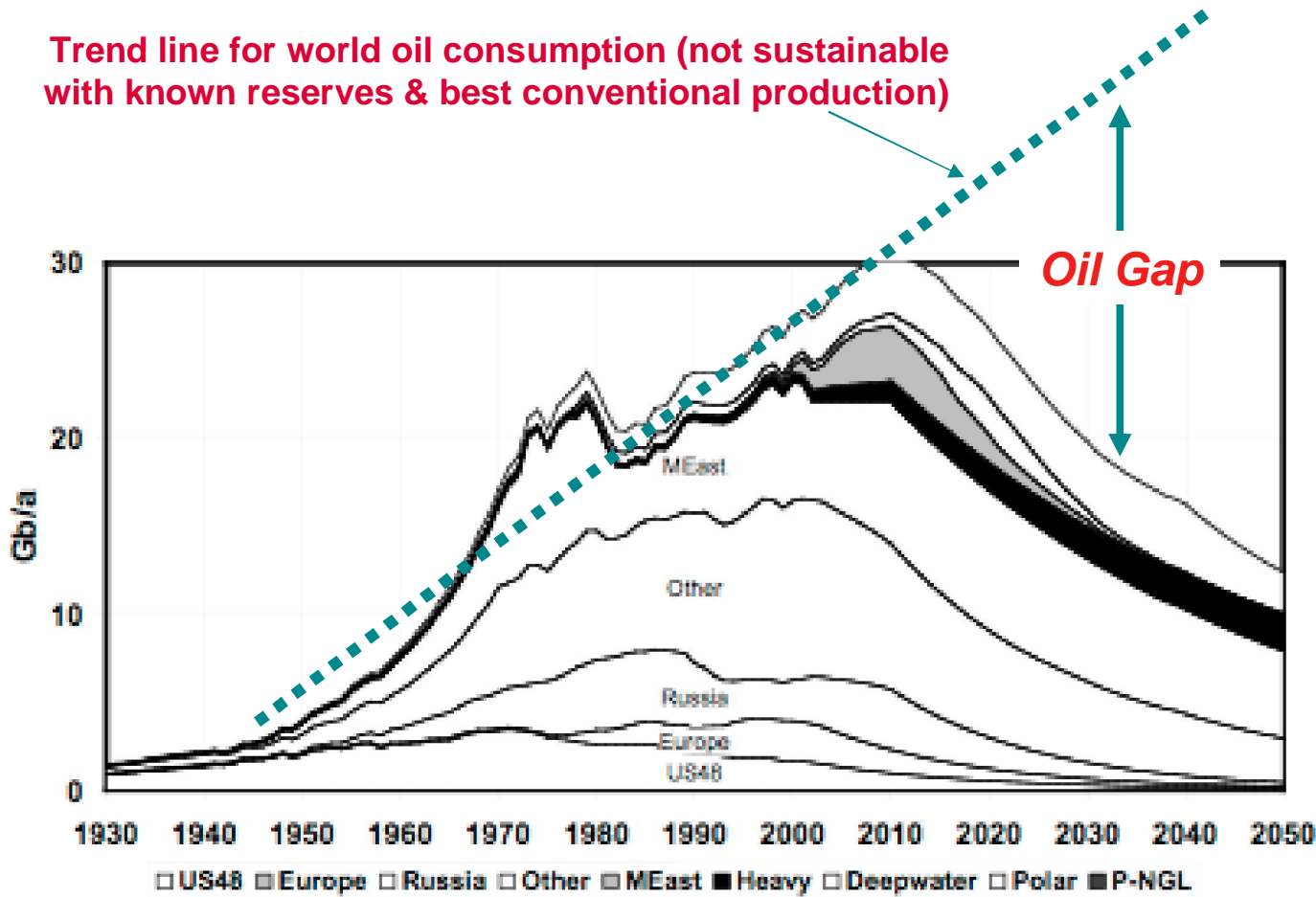
q National Security

Pressure to curb dependence on oil



The Big Shortfall - Oil & Gas Production vs Demand

Trend line for world oil consumption (not sustainable with known reserves & best conventional production)

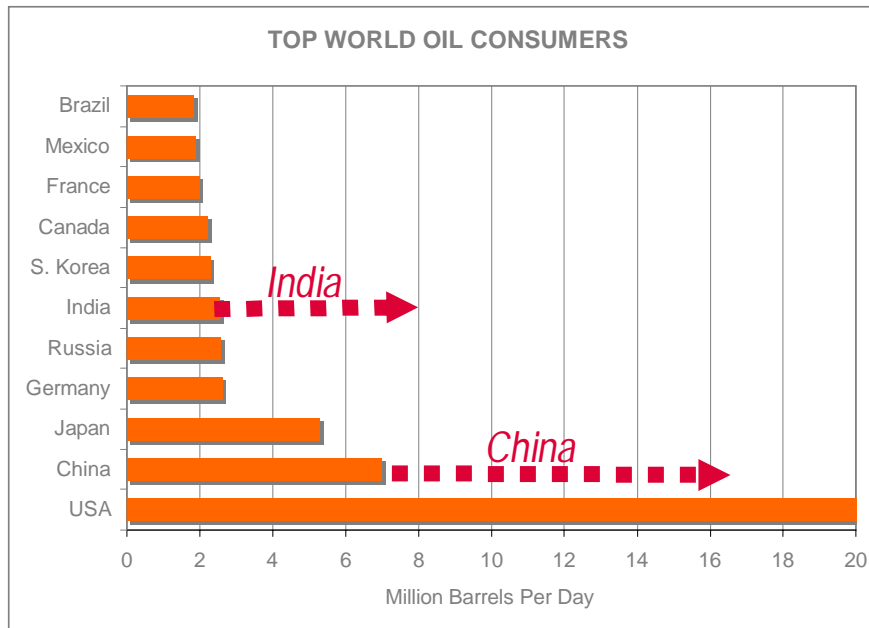


What Are The Options?

- Unconventional & *much more expensive* oil - deep water, tar sands, oil shale
- Conservation through rationing / other mandated usage patterns
- Flexfuels, but capable of meeting only approx. 5-10% of demand . . .
or
- *Vehicles that are much more fuel-efficient*

Base graph from: C.J.Campbell and Anders Sivertsson, "Updating the Oil Depletion Model", 2005.
 © AFS Trinity Power Corporation

Increasing Oil Consumption



© AFS Trinity Power Corporation

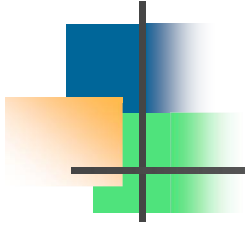
- **World oil consumption: 80 MBD**
- **US oil consumption: 20 MBD (25% of world consumption)**
- **US transportation oil use: 13.6 MBD (8.9 MBD for motor gasoline)**
- **Total US oil imports: 11.8 MBD (approximately equal to gasoline and diesel consumed)**
- **US imports from OPEC: 4.7 MBD**

Source: BP Statistical Review of World Energy, June 2005

- World oil supplies are already stretched because of US oil consumption, most of it for vehicles

- Future demand from China & India will put even more strain on world oil supplies

Oil prices will increase significantly and/or oil will be rationed if measures are not taken to reduce consumption

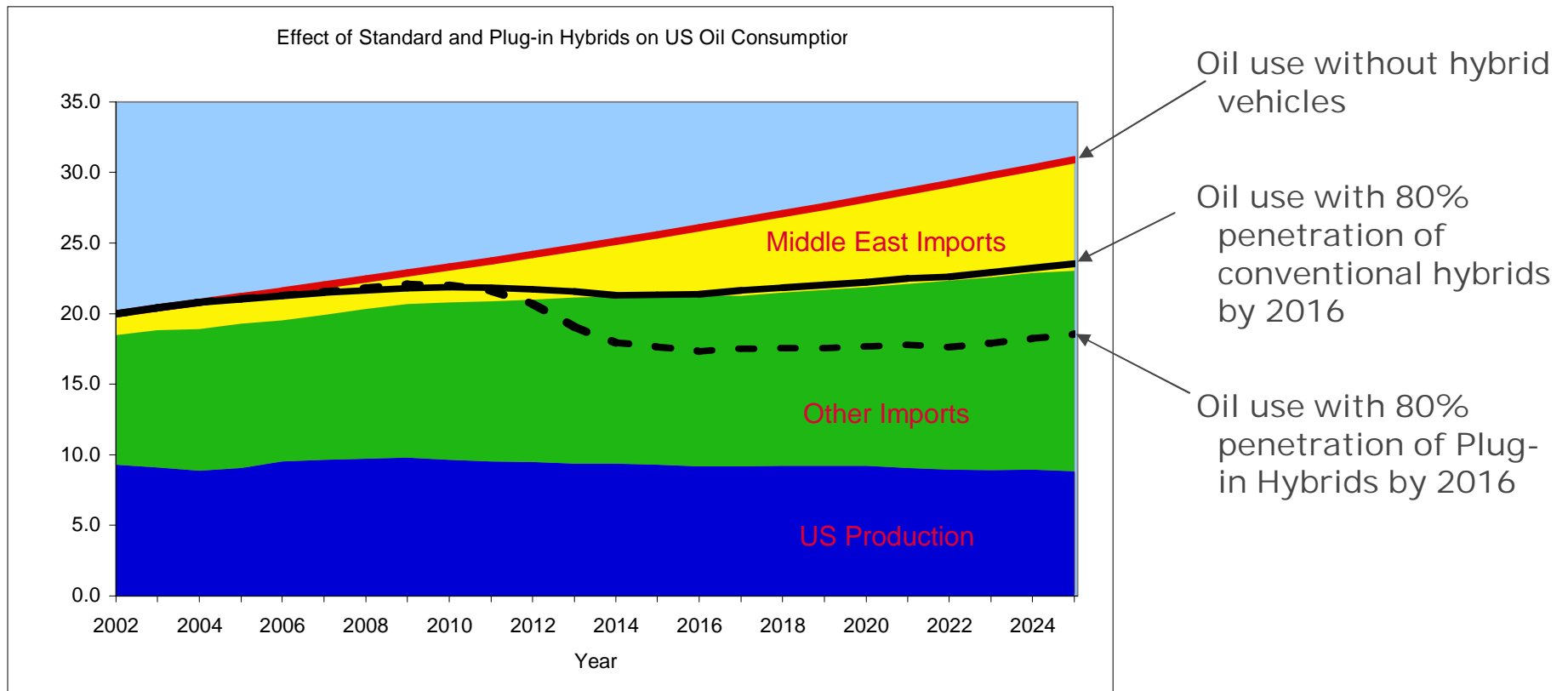


Alternatives to Petroleum

1. Energy Efficiency
2. Alternative Fuels
3. Hydrogen
4. Electricity



PHEVs Will Reduce US Oil Consumption



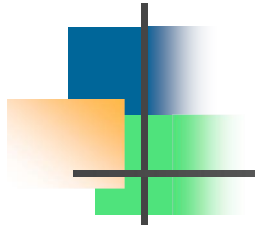
© AFS Trinity Power Corporation

- § Today's hybrids (Prius, Civic, Escape) do not reduce oil consumption enough
- § PHEVs will reduce oil consumption significantly more
- § PHEVs would reduce reliance on Middle East imports

Electricity Advantages

- q Cost
- q Infrastructure
- q Multiple Fuels
- q Renewable Energy
- q Emissions





Hybrid Vehicles



Toyota Prius



Honda Civic

Plug-In Hybrid Vehicles

UC Davis

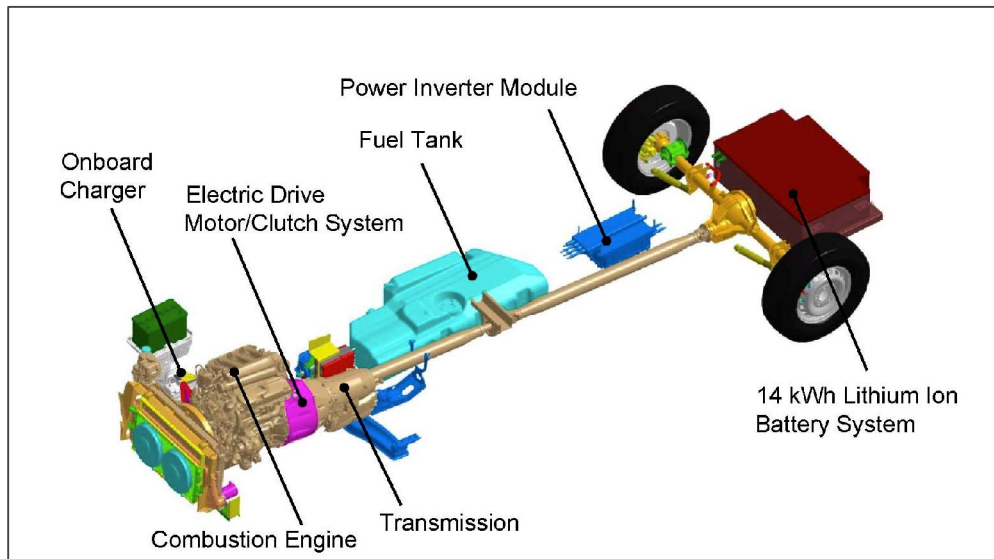
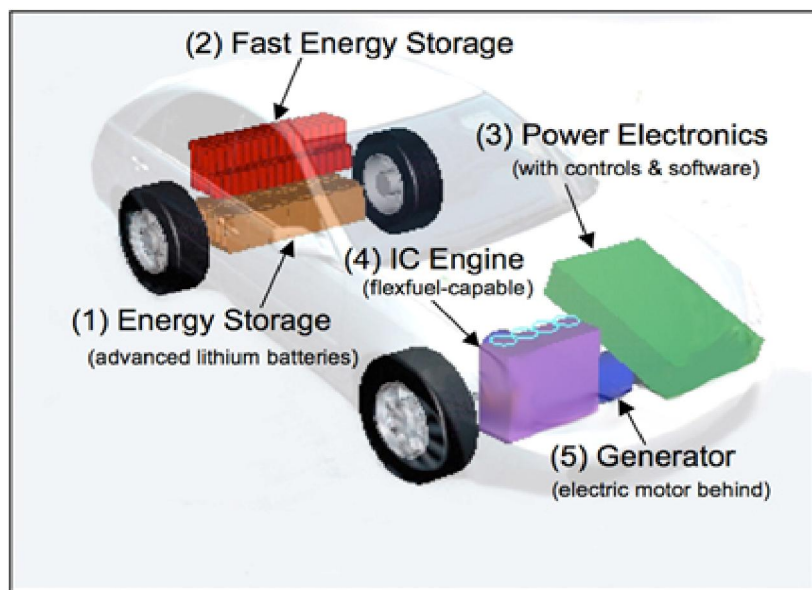


Dodge Plug-in Hybrid
Sprinter

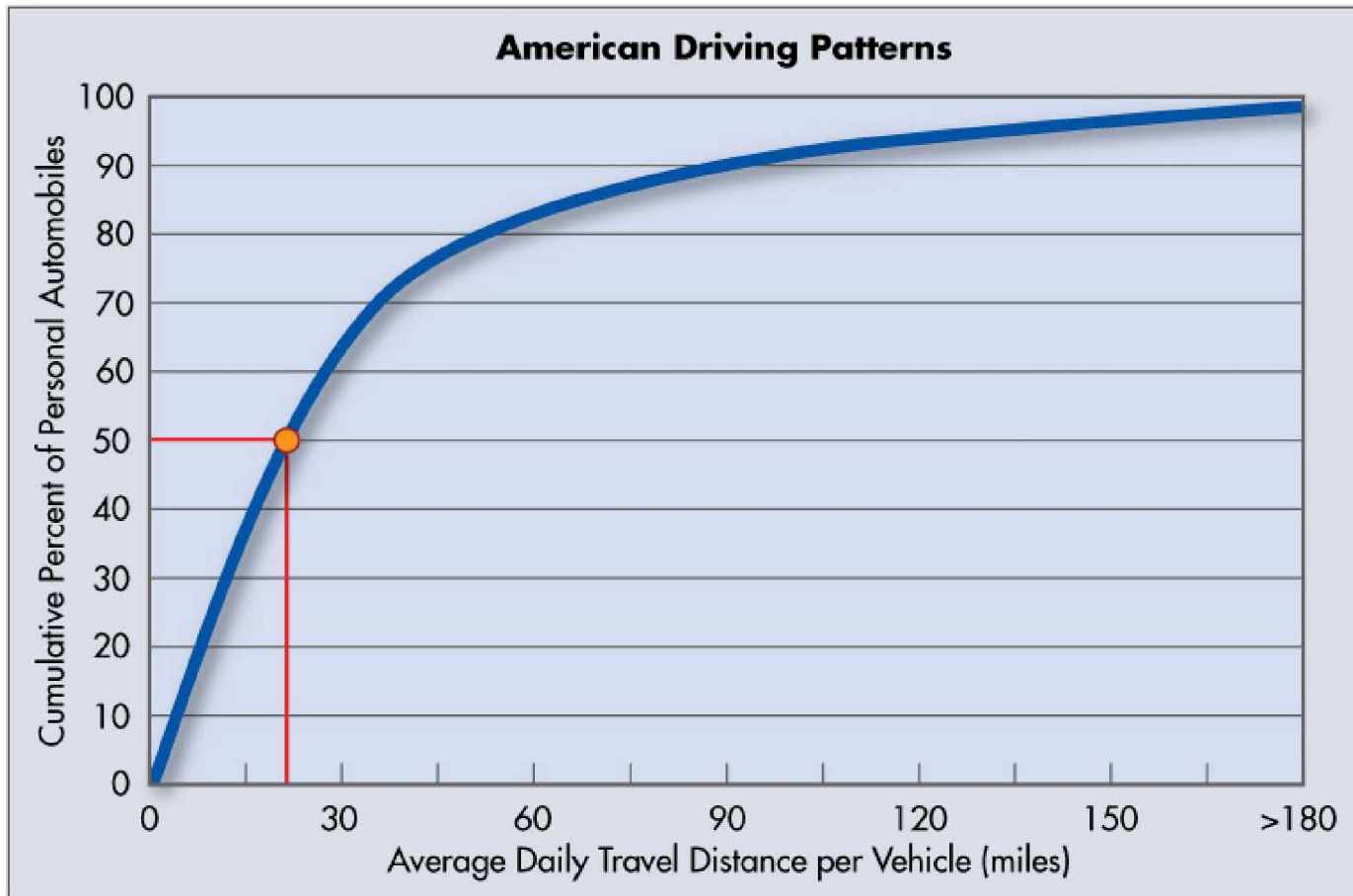


Prius +

Plug-In Hybrid Power Train



Modest Electric Range – Large Impact



How Can A Plug-in Achieve 250MPG*



© AFS Trinity Power Corporation

$$80\% \text{ Electricity } + 20\% \text{ Hybrid } = > 250 \text{ MPG}^*$$

(∞ MPG) (50 MPG)

Power Grid



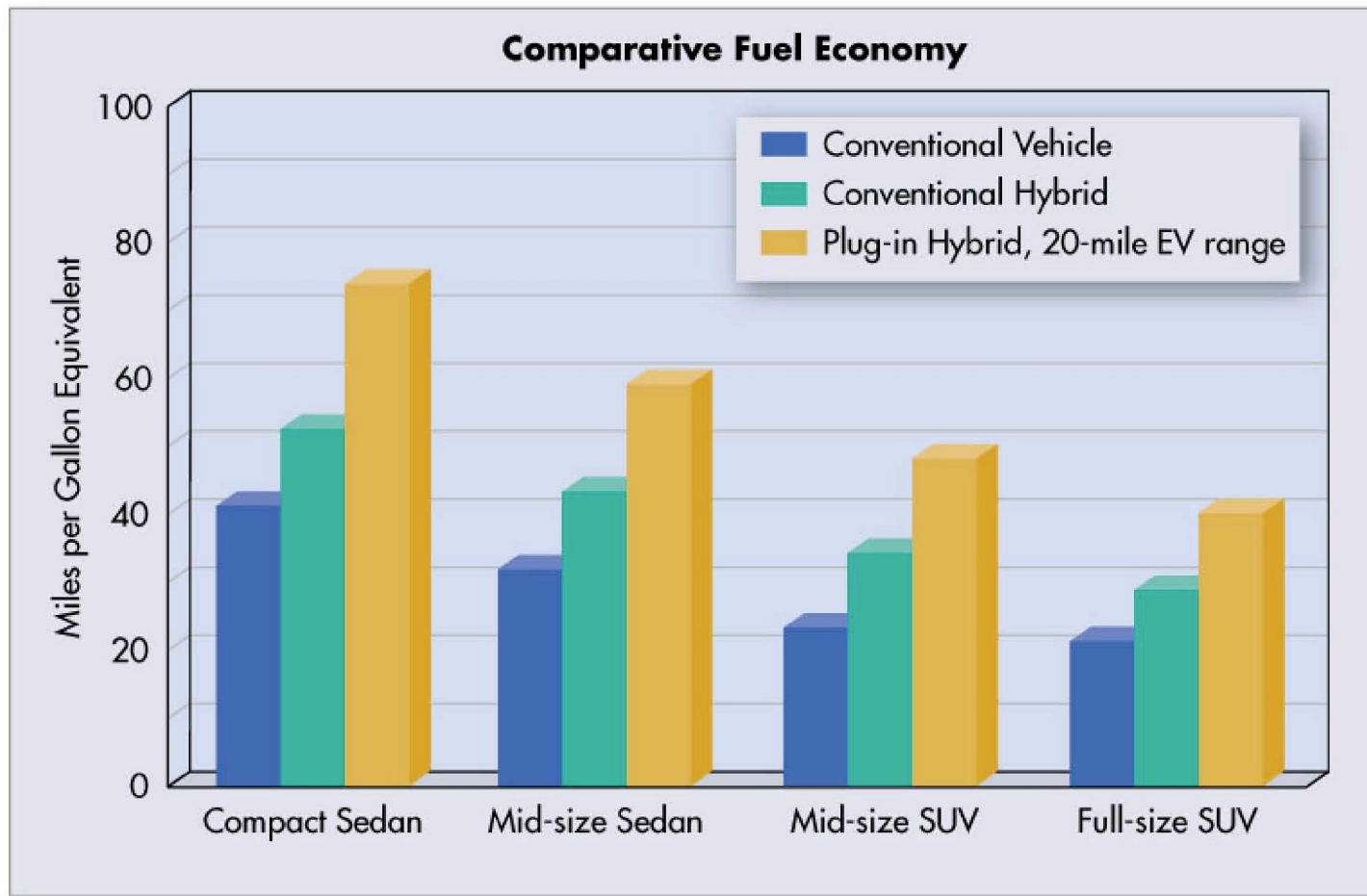
Gasoline + Batteries



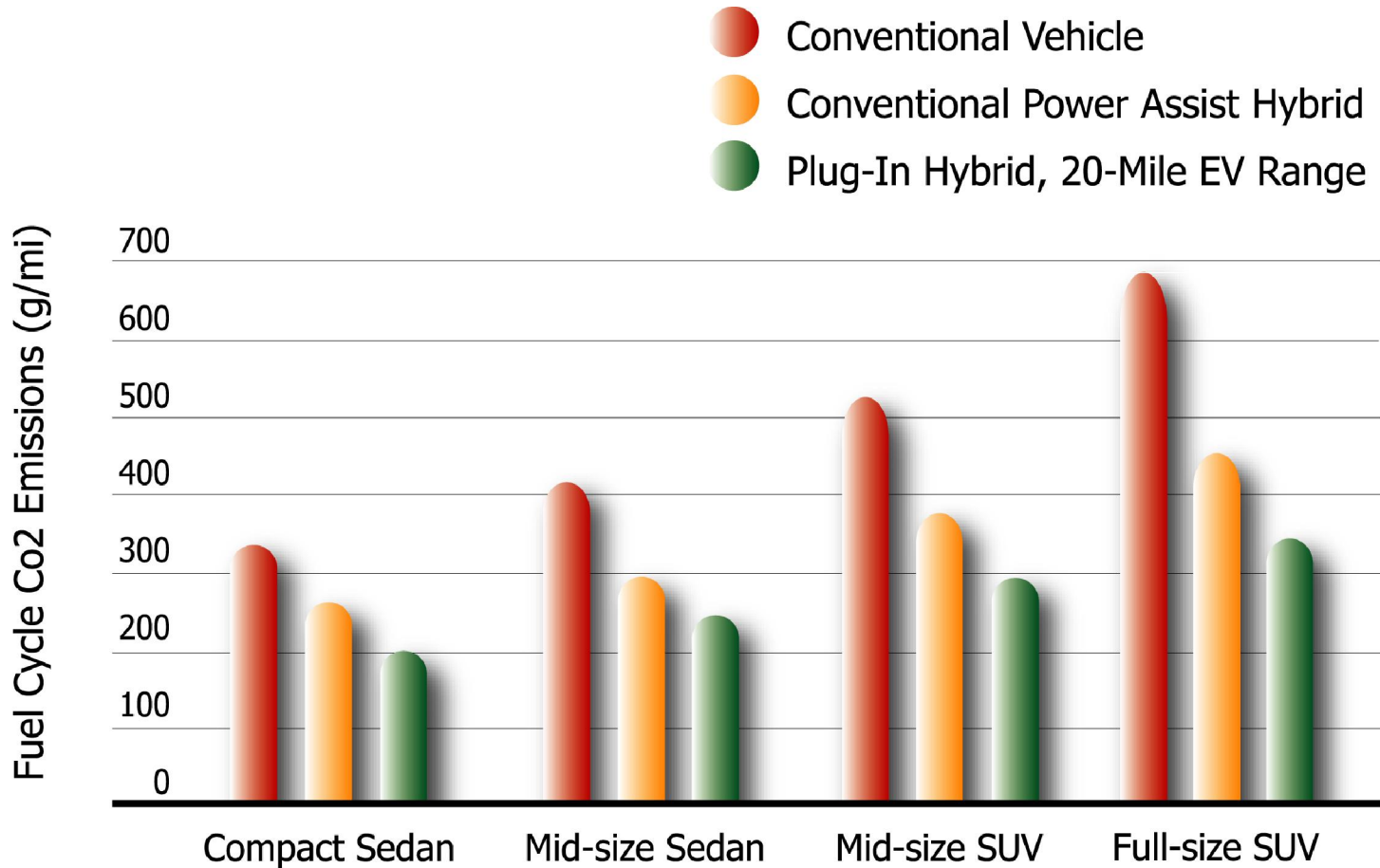
70 to 80% of Americans drive less than 40 miles/day

*All mpg figures represent miles per petroleum gallon

Plugging In Improves Equivalent Fuel Economy



Comparative Co2 Emissions



Plug-In Austin

- q **Purpose:** Demonstrate a market for flexible-fuel plug-in hybrid electric vehicles
- q Austin Energy rebates
- q City of Austin and other local government and business fleet orders
- q Petitions and endorsements from businesses, environmentalists, and others



Plug-In Partners Campaign

- q **Purpose:** Demonstrate a national market for flexible-fuel plug-in hybrid electric vehicles
- q **Coalition:** Local and state governments, utilities, businesses and non-profit organizations
- q **Actions:** "Soft" fleet orders, endorsements, rebates and incentives, petitions and letters
- q **Kickoff:** January 24, 2006
National Press Club
Washington, DC





A Unique Coalition

“I call this a coalition between the tree-huggers, the do-gooders, the sod-busters, the cheap hawks, and the evangelicals.”

James Woolsey, former CIA Director at January 24, 2006 Plug-In Partners Kickoff

How to Become a Plug-in Partner

1. Pass a Resolution
2. Sign a Letter of Commitment
3. Make a "Soft" Fleet Order



Ways to Help as a Partner

1. Obtain “soft” fleet orders from local government and businesses.
2. Create incentives and rebates
3. Support a Petition Drive
4. Consider recruiting other entities in your region



National Campaign



National Campaign

Cities

- | | |
|--------------------|--------------------|
| Arlington, TX | Fort Worth, TX |
| Austin, TX | Irvine, CA |
| Baltimore, MD | Kansas City, MO |
| Boston, MA | Los Angeles, CA |
| Boulder, CO | Madison, WI |
| Chicago, IL | Memphis, TN |
| Corpus Christi, TX | Philadelphia, PA |
| Dallas, TX | Phoenix, AZ |
| Denton, TX | Salt Lake City, UT |
| Denver, CO | Seattle, WA |
| Edmond, OK | Wenatchee, WA |



National Campaign



National Campaign



Counties and Local Governments



Biofuel Organizations

Non-Profits

National/Local Environmental Groups

National Security Organizations

National Utility Organizations



Public Power Utilities



Oklahoma County To Promote the Mass Production of Plug-In Hybrid Vehicles

RESOLUTION NO. 317-06

APR 24 2006
By 

**A RESOLUTION OF THE COMMISSIONERS OF OKLAHOMA COUNTY
ESTABLISHING SUPPORT OF THE
"PLUG-IN PARTNERS NATIONAL CAMPAIGN"
TO PROMOTE THE MASS PRODUCTION OF PLUG-IN HYBRID VEHICLES.**

WHEREAS, the over-reliance of America on foreign oil has become a growing and serious threat to the economic vitality and national security interest of the United States; and

WHEREAS, the imbalance between gasoline resources and worldwide demand is escalating gasoline prices at an alarming rate and to levels that overburden commerce, hurt economic growth and cause serious hardship on our citizens; and

WHEREAS, the technology exists today to build a flexible-fuel plug-in hybrid electric automobile that could reduce oil imports, fuel costs to our citizens and our economy and air emissions by dramatic margins; and

WHEREAS, the County of Oklahoma County is partnering with Austin and others of the nation's largest cities, to urge automakers to mass produce plug-in hybrid vehicles for the substantial economical, environmental and strategic reasons outlined; and

WHEREAS, the County of Oklahoma County is officially launching "Plug-in Oklahoma County," a community-wide campaign to promote mass production of hybrid vehicles;

NOW, THEREFORE, BE IT RESOLVED BY OKLAHOMA COUNTY: That the County of Oklahoma County joins the Plug-in Partners National Campaign; and

BE IT FURTHER RESOLVED: That the Board of County Commissioners of Oklahoma County is directed to develop a program to encourage the future purchase of flexible-fuel plug-in hybrid vehicles, including fleet orders; and

BE IT FURTHER RESOLVED: That the County of Oklahoma County will work with the local government, education, business and environmental community to advocate for the purchase of flexible-fuel plug-in hybrid vehicles.

APPROVED this 12th day of April 2006.

**BOARD OF COUNTY COMMISSIONERS
OF OKLAHOMA COUNTY, OKLAHOMA**



Chairman 

Member 

Member 

ATTEST:

Carolynn Caudill, County Clerk



Resolution Number # _____

RESOLUTION **in support of the Plug-In Partners National Campaign**

WHEREAS, the Indian Nation Council of Governments (INCOG) represents the Tulsa metropolitan planning organization and fifty local governments located in Creek, Osage, Tulsa, Wagoner and Rogers counties in Northeastern Oklahoma; and

WHEREAS, INCOG is proactively working to improve regional air quality and reduce ozone-forming pollution; and

WHEREAS, the over-reliance of America on foreign oil has become a growing and serious threat to the economic vitality and national security interest of the United States; and

WHEREAS, automobile emissions are a major contributing factor to global warming and to smog in our cities, which threaten the health of our citizens and the sustainability of our planet; and

WHEREAS, the imbalance between gasoline resources and worldwide demand is escalating gasoline prices at an alarming rate and to levels that overburden commerce, hurt economic growth and cause serious hardship on our citizens; and

WHEREAS, hybrid engine systems currently offer significant emissions reductions over conventional internal combustion systems; and

WHEREAS, the technology exists today to build a flexible-fuel plug-in hybrid electric automobile that could reduce oil imports, fuel costs to our citizens and our economy and air emissions by dramatic margins; and

WHEREAS, INCOG is partnering with Austin and others of the nation's largest cities, to urge automakers to mass produce plug-in hybrid vehicles for the substantial economical, environmental and strategic reasons outlined;

NOW, THEREFORE, BE IT RESOLVED:

That INCOG joins the Plug-in Partners National Campaign; and

BE IT FURTHER RESOLVED:

That INCOG makes a commitment to support local, state and federal policies that will promote the study, planning, production and use of flexible-fuel plug-in hybrid vehicles.

PASSED AND APPROVED THIS 11th DAY OF May, 2006.

John Selph
Chairman, INCOG Board of Directors

US Conference of Mayors ENCOURAGING THE USE OF PLUG-IN HYBRID VEHICLES

Resolution No.53

Submitted By:

- The Honorable Will Wynn
- Mayor of Austin
- The Honorable Thomas Menino
- Mayor of Boston
- The Honorable Robert Cluck
- Mayor of Arlington
- The Honorable Patrick H. Hays
- Mayor of North Little Rock
- The Honorable Rocky Anderson
- Mayor of Salt Lake City
- The Honorable Henry Garret
- Mayor of Corpus Christi
- The Honorable John Hickenlooper
- Mayor of Denver
- The Honorable Greg Nickels
- Mayor of Seattle
- The Honorable Ardell Brede
- Mayor of Rochester
- The Honorable Martin J. Chavez
- Mayor of Albuquerque
- The Honorable David Berger
- Mayor of Lima
- The Honorable Kitty Piercy
- Mayor of Eugene
- The Honorable Miguel Pulido
- Mayor of Santa Ana

ENCOURAGING THE USE OF PLUG-IN HYBRID VEHICLES

- 1. WHEREAS, American over-reliance on foreign oil is a growing and serious threat to the national security and economic vitality of the United States;
- 2. WHEREAS, the United States of America, with less than five percent of the world's population, is responsible for producing approximately 25 percent of the world's global warming pollutants; and
- 3. WHEREAS, petroleum combustion accounts for about 40% of all U.S. CO2 emissions.
- 4. WHEREAS, oil is only used to generate 2% of American electricity;
- 5. WHEREAS, recent, well-documented impacts of climate disruption include average global sea level increases of four to eight inches during the 20th century; a 40 percent decline in Arctic sea-ice thickness; and nine of the ten hottest years on record occurring in the past decade; and
- 6. WHEREAS, the U.S. Conference of Mayors has previously adopted strong policy resolutions calling for cities, communities and the federal government to take actions to reduce global warming pollution; and
- 7. WHEREAS, the 73rd annual U.S. Conference of Mayors endorsed the U.S. Mayors Climate Protection Agreement as amended by the meeting and urged mayors from around the nation to join this effort;
- 8. WHEREAS, plug-in hybrid vehicles can dramatically reduce reliance on imported oil and decrease greenhouse gas emissions and other pollutants generated by vehicles;
- 9. WHEREAS, plug-in hybrid technology can accomplish reductions in greenhouse gas reductions and reliance on oil more quickly than other emerging technologies;
- 10. WHEREAS, plug-in hybrids can be manufactured with flexible fuel engines thus increasing business for American agriculture;
- 11. WHEREAS, plug-in hybrid vehicles will also help American citizens and businesses save on fuel costs
- 12. WHEREAS, the City of Austin is leading the Plug-In Partners campaign to encourage automakers to manufacture flexible fuel plug-in hybrids and to demonstrate a demand for such vehicles;
- 13. WHEREAS, Cities all across America are providing leadership in fighting climate change;
- 14. WHEREAS, American cities working together can effectively address challenges facing our cities and our nation;
- 15. NOW THEREFORE BE IT RESOLVED that the U.S. Conference of Mayors endorses the Plug-In Partners initiative and urges mayors from around the nation to join this effort.
- 16. BE IT FURTHER RESOLVED that the U.S. Conference of Mayors urges automakers to manufacture flexible fuel plug-in hybrid vehicles;
- 17. BE IT FURTHER RESOLVED that the U.S. Conference of Mayors encourages its mayors to submit "soft" or "advance" fleet orders to the Plug-In Partners initiative, which only commit the City to seriously consider the purchase, but shows interest to automakers;
- 18. BE IT FURTHER RESOLVED that the U.S. Conference of Mayors encourages its members to support federal and state legislation that funds incentives, demonstration projects, and fleet orders for plug-in hybrid vehicles.