

THE MOTOR VEHICLE -- POLLUTION SOLUTION

MARICOPA COUNTY AIR QUALITY CONFERENCE

Tuesday, October 20, 2009

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The Time to Employ Future Energy is Now

The economics and uncertainty
of foreign oil dependence is unsustainable

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What is standing in our way?

- Complacency
- The One Solution Imperative
- C.A.V.E.
- The Unasked Question – Compared to What?

The Time to Employ Future Energy is Now

Exhaust Emissions are The Major Source of Air Pollution in the Valley -- which Impacts:

- The health of our citizens, particularly children
- Our quality of life
- The economy of a tourist destination

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**WE HAVE MADE SOLID PROGRESS – NOW WE MUST BUILD
ON THIS BASE ON:
ARIZONA’S ROAD TO CLEAN AIR & ENERGY SECURITY**

Maricopa County leads the nation by displacing
31.5 million gallons of petroleum fuel per year

*“The problem is not what people don’t know”.
“It is what they know that isn’t so”.*

Mark Twain

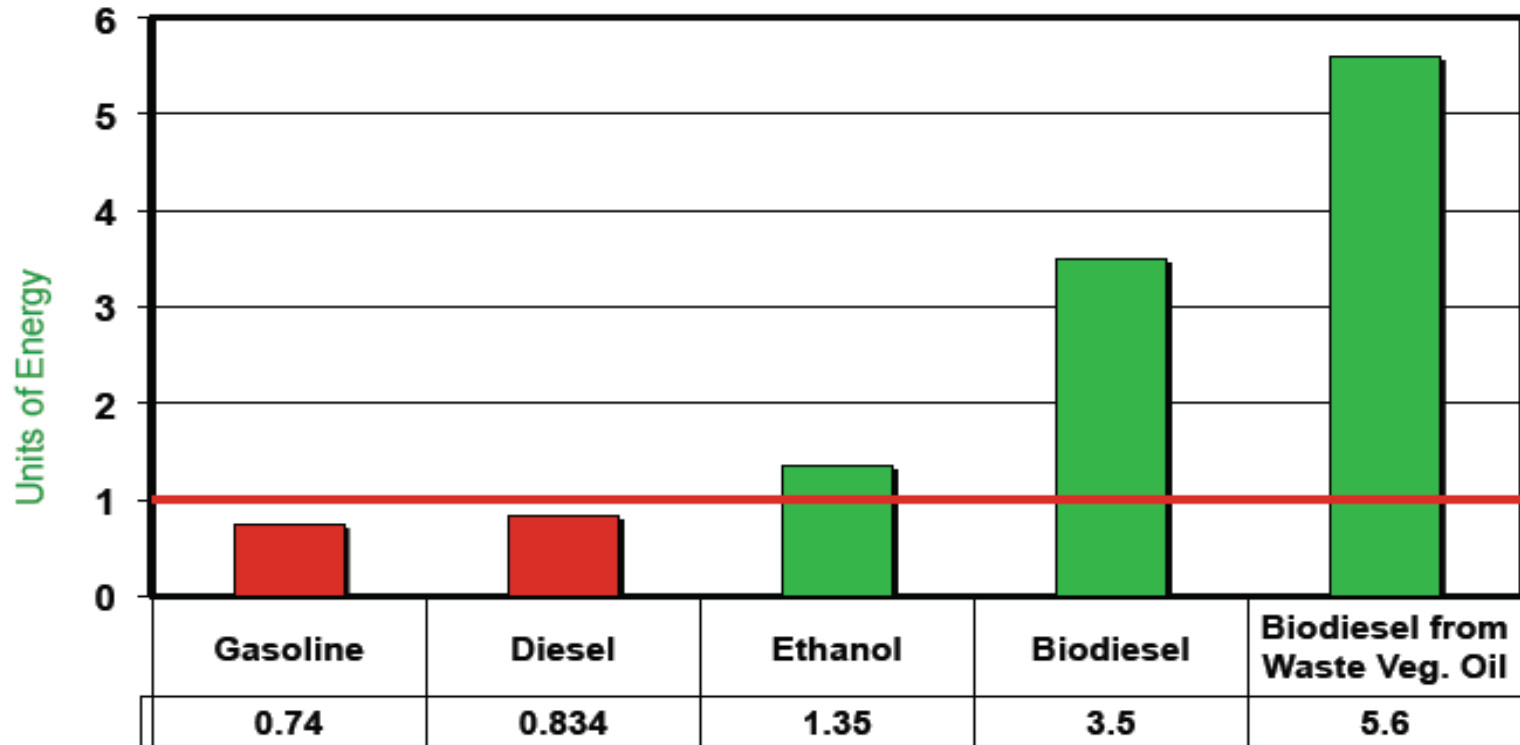
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Valley of the Sun

- Valley Metro -- US Largest Transit System on Liquefied Natural Gas
- Sky Harbor -- US Largest user of Compressed Natural Gas
- APS – One of first Hydrogen fueling stations in the world
- Our own Ethanol and Biodiesel Refineries
- Virtually all Municipal Fleets Using Clean Fuels



The Energy Ratio of Motor Fuel Energy Generated per Unit of Energy Required in Production - By Fuel Type



Source: Office of Energy Efficiency and Renewable Energy – US Department of Energy and the National Biodiesel Board

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VEHICLE & FUEL OPTIONS HERE & NOW

- Liquefied Natural Gas (LNG) Heavy Duty – special vehicle & ground equip. Range – 85% of standard – specialized fuel
- Compressed Natural Gas (CNG) All size vehicles – special vehicle & ground equip. Range 65% of standard – specialized fuel
- Liquid Propane Gas (LPG)
Applications - Light & Mid Duty – retrofit required
Range 75% of standard – available specialized fuel

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VEHICLE & FUEL OPTIONS -- HERE & NOW

- Biodiesel (B1 to B100) All Diesels, Range 100% of standard 130% of gasoline. Fuel lends available
- Ethanol (E5 to E85) Range 65% of standard, Medium & Light Duty – standard vehicles available. low blended on seasonal basis
- All Electric Light Duty – special vehicles, Range from 40-120 miles
Slow charged at most outlets, fast charging in progress
- Hybrid Light Duty – some special heavy duty Range 100% of standard using non-electric engine component -- Plug-in Hybrids are coming further, reducing petro fuel use

So What – can we do – NOW ?

1. Mandate that your fleets use an alternative fuel
There is a clean fuel and/or vehicle for every use
2. Promote, and offer incentives for employees to use clean fuels in their personal vehicles
3. Support clean fuel stations in your area
4. Promote and recognize the use clean fuels:
 - Contests, incentives and recognition
 - Internal publications
 - Internal events -- lunches – dinners
 - Local media

So What – can we do – NOW ?

AND THE BIG ONES:

- Tax reductions for clean fuels
- Car Pool lane for clean fuel vehicles

The 2,000 alt-fuel debacle is behind us – Let's find a way to do it not a reason why we can't

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thank you !

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