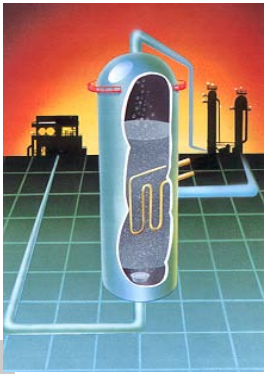


THE COST OF AMERICA'S CURRENT ENERGY (OIL) POLICY



WE BUY THE LOWEST COST OIL NO
MATTER WHERE IT COMES FROM
WHILE HIDING THE REAL COST TO
AMERICAN PEOPLE

THE REAL COST AN ADDITIONAL
\$30 TO \$40 PER BARREL MORE!



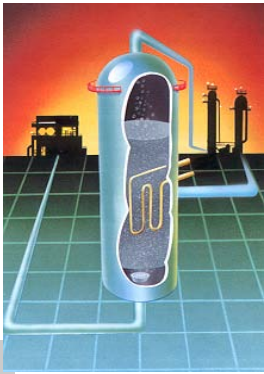
“ONE FOR THE PEOPLE”

IF THE NEXT PRESIDENT WANTS TO LEAVE A LEGACY FOR THE AMERICAN PEOPLE ALL HE HAS TO DO IS ADOPT AN ENERGY POLICY THAT FAVORS THE PEOPLE AND NOT OPEC PRODUCERS



THERE ARE AT LEAST THREE ECONOMIC FACTORS THAT IMPACT THE COST (\$) OF FUEL AT THE PUMP

- ◆ Strategic – Reducing US Energy Imports (National Energy Policy)
- ◆ Increasing US Refining Capacity + CAFÉ Levels (more fuel availability & better fuel mileage)
- ◆ Environmental - Lower Emissions (Clean Cities Programs - lower GHG emissions)



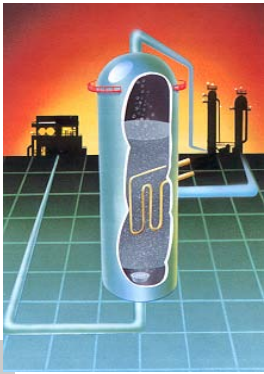
THE LARGEST COST TO THE AMERICAN ECONOMY ?

The DOE has said to maintain a military presence in the Middle East can cost the US consumer an additional 50¢/gallon at the pump:

◆ 50¢/gallon ~ \$92 billion/yr (Security Premium**)

NEBULOUS MONEY – (Because we don't see it)

**The National Defense Council Foundation has performed a very detailed study of the “Cost of Imported Oil” including other factors not considered here showing that this Security Premium could approach \$2.00/gallon
America's Achilles Heel: the Hidden Costs of Imported Oil, A Strategy for Energy Independence, a report of the findings of NDCF's year-long investigation of the economic and security costs of oil imports as well as a strategy to reduce our dependence.- www.ndcf.org/



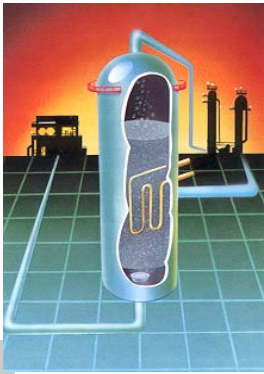
THE SECOND LARGEST COST TO THE AMERICAN ECONOMY ?

It is estimated that the lack of US Refining Capacity, approximately 3 million bbl/d, costs the US consumer ~ 25¢/gallon for 8 months each year (refining capacity penalty)

◆ 25¢/gallon ~ \$30 billion/yr

REAL MONEY

(we see this at the pump every driving season and the profits go directly to Petroleum Refiners)



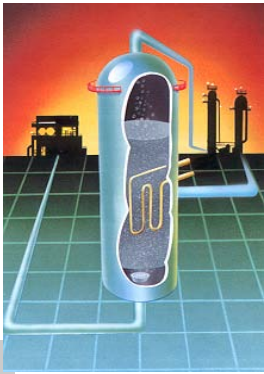
HOW MUCH DOES THE US ENERGY POLICY COST THE AMERICAN ECONOMY ?

It is estimated that by transitioning light duty trucks and passenger cars from gasoline to “new” diesel over a 20 year period the American Consumer could save 1.4 million bbl/d of fuel (Engine/Energy Efficiency):

All we have to do is follow the European model where over 60% of new vehicles are diesel; getting 30% better mileage with lower emissions. In fact Europe exports gasoline to the US because its diesel program is so much better.

- ◆ approximately \$35 billion/yr in fuel savings

FUTURE MONEY



LETS SUMMARIZE THESE PROCEEDING THREE POINTS

- ◆ Middle East Security Premium - \$92 + Billion/yr
 - (Nebulous Money - hard to see but you know its big)
- ◆ Refining Capacity Penalty - \$30 billion/yr
 - (Real Money – out of pocket costs at the pump)
- ◆ Engine/Energy Efficiency - \$35 billion/yr
 - (Future Money – use less fuel save money)
- ◆ **ONLY \$157 BILLION /YR**



How much new production/refining capacity do we need to add each year to reduce U.S. dependence on imports by 6 million bbl/d in 20 years?

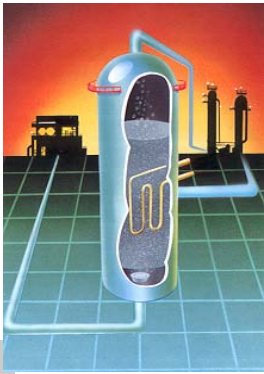
375,000 barrels per day added each of 16 years

◆ Actual Refining Capacity

– 288,000 bbl/d (beginning in year 5)

◆ Fuel Savings switching from gasoline to diesel

– 87,000 bbl/d (fuel savings at 30% better mileage)



How Much Will New Refining Capacity Cost? (2003 ESTIMATES)

Although no new refineries have been built in the US since 1972 - cost in \$/installed barrel (\$/bbl)

- ◆ Oil Companies **say \$40,000 / bbl (100,000 bbl/d crude oil refinery - \$4 billion)
 - 40¢/gallon*
- ◆ Sasol says \$32,000 / bbl (33,000 bbl/d gas to liquids refinery \$1.05 billion or \$3.2 billion for 100,000 bbl/d)
 - 33¢/gallon*
- ◆ Sasol says \$100,000 / bbl (80,000 bbl/d coal to liquids refinery \$8 billion or \$10 billion for 100,000 bbl/d)
 - \$1.01/gallon*
- ◆ Choren says \$150,000 / bbl (6,500 bbl/d bio-mass to liquids refinery – \$980 million or \$15 billion for 100,000 bbl/d)
 - \$1.45/gallon*

*(ADDITIONAL COST PER GALLON TO RECOVER THE CAPEX AT 8% INTEREST OVER 10 YEARS)

** ASSUMES THAT A CRUDE OIL REFINERY WILL HAVE TO PRODUCE ULTRA CLEAN FUELS

NOTE: SIZE OF THE REFINERY DOES MATTER – bigger is better

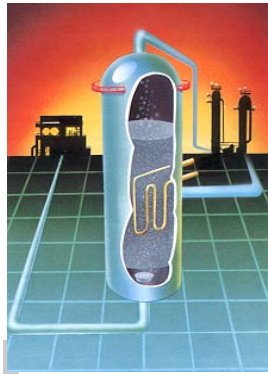


HOW MUCH NEW REFINING CAPACITY CAN WE GET FOR ONLY \$60 BILLION/YR?

(less than 50% of Middle East Military Presence and lack of refining capacity)

- ◆ **Crude Oil** (US Coast Line – Imported Crude)
 - 2,400,000 bbl/d
 - (doesn't help reduce US reduce imports of crude oil so why do it)
- ◆ **CTL** – (Western US - Alaska to Ohio)
 - 600,000 bbl/d
- ◆ **Choren BTL** (Western/Central US Crops)
 - 400,000 bbl/d





SO WHY NOT BUILD NEW US CRUDE OIL REFINING CAPACITY ? (2003 ESTIMATES)

A US Crude Oil Refinery costs less than a
US BTL / CTL Refinery **or DOES IT !**

- ◆ US Crude Oil Refinery (100,000 bbl/d crude)
 - CAPEX Recovery 40¢/gallon WITH Middle East Presence + 50¢/gallon = **90¢/gal**
 - Refinery Capacity Penalty 16¢(annualized) **16¢/gal**
 - Still imports crude oil @ \$35/bbl - \$3.1 billion/yr **\$1.06/gal**

- ◆ Sasol CTL (80,000 bbl/d – 16.5 million ton/yr coal)
 - CAPEX Recovery \$1.01/gal NO Middle East Presence 0¢/gal = **\$1.01/gal**
 - Domestic resource \$330 million/yr – imports \$0

- ◆ Choren BTL (6,500 bbl/d 1 million ton/yr bio-renewable)
 - CAPEX Recovery \$1.45/gal NO Middle East Presence 0¢/gal = **\$1.45/gal**
 - Domestic resource \$40 million/yr – imports \$0



ENVIRONMENTAL ISSUES

IF THE U.S. IMPOSES CARBON CREDITS ON REFINERIES AND TRANSPORTATION FUELS THE CTL REFINERY WILL HAVE A LARGE SAVINGS OVER A PETROLEUM REFINERY

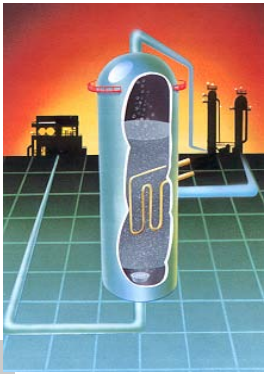
THE BTL REFINERY MAY WELL BE LESS EXPENSIVE THAN EITHER THE CTL OR PETROLEUM REFINERY PLUS MAKING BIO-RENEWABLE FUELS



HOW DO WE PROPOSE TO PAY FOR THIS NEW BTL CTL REFINING CAPACITY?

A Syn-Fuels Energy Credit Similar to Ethanol, CNG, LPG, LNG & the newly approved Biodiesel Tax Credit Program:

- ◆ BTL (bio-renewable to F-T diesel) “trees/crops”
 - 1 ¢/gal per % of blending
- ◆ CTL (bio-mass to F-T diesel) “coal”
 - 1/2 ¢/gal per % of blending
- ◆ **An Energy Credit Allows Anyone To Build New Refining Capacity**



ONE ADDITIONAL THOUGHT

**THIS IS A U.S. BASED ENERGY
PROGRAM THAT CAN NOT BE
OUTSOURCED TO INDIA**