How to End America's Addiction to Oil

By using more electricity, natural gas and biofuels in our transportation fleet, we can quickly reduce our dependence on OPEC.

By R. JAMES WOOLSEY

At the end of March, oil posted its fifth consecutive quarterly price increase: It's now solidly above $80 per barrel. If it reaches $125 a barrel again, as it did in 2008, then approximately half the wealth in the world—above and below ground—will be controlled by OPEC nations.

Oil dominates transportation: About 95% of transportation fuel in the U.S. is derived from petroleum. And over three-quarters of the world's reserves of conventional oil are in OPEC nations. But OPEC is pumping less than it did in the 1970s, despite a doubling in global demand, because it's a cartel maximizing its income. OPEC sets oil's price at a level that exploits our addiction but is generally not high enough for long enough that we go cold turkey.

Oil profits enhance the ability of dictators and autocrats to dominate their people. This is one reason that eight of the top nine oil exporters (Norway is the exception) are dictatorships or autocratic kingdoms, as are virtually all of the 22 states that depend on oil and gas for at least two-thirds of their exports.

Saudi Arabia's oil wealth enables it to control around 90% of the world's Islamic institutions even though it has less than 2% of the world's Muslims. So the teaching in most Islamic schools is not the tolerant form of Islam associated with the late Indonesian President Abdurrahman Wahid. These schools teach Saudi Wahhabi doctrine—fundamental hostility to Shiites, Jews, homosexuals and apostates; oppression of women; and the pursuit of a global caliphate, or theocratic dictatorship. This doctrine bears startling resemblance to the substantive teachings of the Taliban and al Qaeda (although of course they and the Wahhabis disagree passionately about who should have power). The effect is that we now are financing both sides in our war with radical Islam.

Yet so far every national policy we've tried to end our oil addiction has failed, including picking winners. Neither the Synfuels Corporation (the early 1980s drive for coal-to-liquid fuel) nor the hydrogen highway (the push early in this decade to get Americans to drive hydrogen-powered cars long before the technology was ready) had a chance of succeeding. It was too easy for OPEC to drive prices down and crush such costly competition.

Supporters of cap-and-trade legislation have argued that putting a price on carbon would help us get off oil. But the effect of this would be negligible. Twenty dollars a ton of CO2 equates to about 20 cents a gallon at the gasoline pump.

Drill, baby, drill? Some suggest that if we replace foreign with domestic oil our problems will be solved. Domestic drilling does help reduce oil's share—a billion dollars a day—of our huge balance of payments deficit, and it adds some domestic employment.
But that's it. OPEC has very large reserves and cheap extraction costs, while domestic drilling costs for new oil will be many times that of the Saudis. We can't drill our way out of the cartel's control of the global oil market.

Shifting the way we produce electricity also has essentially nothing to do with oil dependence; less than 2% of U.S. electricity comes from burning oil. We may decide to shift from coal-fired electricity to wind or nuclear for environmental reasons, or not do so for cost reasons, but these issues are not at all central to the oil debate.

We urgently need to reduce oil dependence in the short term. This means lowering demand and utilizing substitutes as cheaply and quickly as possible. Here are four strategies we can implement beginning today:

First, we should take advantage of electronic modifications that are being developed for internal combustion engines in existing vehicles. Innovations in computer chips and valves hold an early promise of substantial improvements in mileage by regulating combustion much better than current engines can.

Second, we should pay attention to T. Boone Pickens's recommendations to switch to natural gas for fleet vehicles such as buses, and for interstate trucking. Buses and trucks are easily modified to run on natural gas and would only require new pumps at a few central locations and interstate truck stops.

Third, we should force petroleum products to compete with other fuels as soon as possible. There are many ways to do this, and we should use them all. For example, we should deploy "drop-in" fuels produced from waste and algae. These fuels can mix freely with gasoline and diesel in existing vehicles.

We should also require all new gasoline-using vehicles to be "flexible fuel, open standard." What this means is that these vehicles would use a type of plastic in their fuel lines that tolerates nongasoline fuels such as ethanol and methanol. This is a cheap and simple change: Brazil accomplished it easily several years ago. Methanol made from natural gas can be produced for around $1.20 a gallon (of gasoline equivalent) today.

Fourth, we should move to electrify automotive transportation. Plug-in hybrids are on the road now (I drive one), and production models such as the Chevy Volt, due out this autumn, can drive electrically for roughly 40 miles before needing to plug in or to use on-board liquid fuel. Three out of four days an average car in the U.S. travels fewer than 40 miles.

All-electric vehicles now exist and their range will improve as battery technology does. Time-of-day pricing will encourage most people to charge their cars at night, when only a fraction of the electric grid is now utilized. And three major studies show that we do not need to build new power stations until well over half of cars on the road are plug-in hybrids or all-electric.

We can move quickly to strike a major blow at oil and OPEC's dominance if we'll adopt a portfolio approach and stop allowing the perfect to be the enemy of the good. We can get a long way using existing vehicles, existing technology and affordable natural gas. As other improvements become practical—like charging your electric car from solar panels on your roof—they can be adopted. In the meantime, we need Theodore Roosevelt's attitude. He decided to improve competition by taking on Standard Oil's cartel and breaking it into 30 parts.

President Obama, meet your cartel. It's called OPEC.

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