

Council on Energy Security Report Says Electrification of Transport Key to Reducing Oil Use and Vulnerability

Energy Security also Needs to be more Explicitly Part of Total US Security Framework; Trucks Part of CAFÉ Standards?

SCDigest Editorial Staff

Despite the temporary current modest respite from soaring oil prices, energy costs and security remain essential issues for long term US economic performance, supply chain efficiency and national security.

With that backdrop, a group called the Energy Leadership Council, co-chaired by Federal Express founder and CEO **Fred Smith** and **General P.X. Kelley** of the US Marine Corp. (Retired) supported by participation from a wide variety of business and military leaders, has just released a report that overviews the current oil situation in detail and offers a detailed and persuasive case for changes to policy and investment that must be made to change the status quo.

"Hostile state actors, insurgents, and terrorists have made clear their intention to use oil as a strategic weapon against the United States. Steadily rising global oil prices add to the danger by exacerbating tensions among consuming nations," the report notes in its opening paragraphs. "And even in the absence of full-blown geopolitical crises, oil dependence, with its incumbent exporting of American wealth, exacts a tremendous financial toll on our country."

The US currently uses about one-fourth of the world's oil, and with imports accounting for about 60% of total usage, that means \$300 billion was sent overseas to pay for that oil in 2007. That represents about 40% of the 2007 trade deficit, and "an unprecedented transfer of wealth from the domestic economy to foreign oil producers."

Of course, most of us understand the situation, with

At least 75 percent—and by some estimates as much as 90 percent—of all oil and natural gas reserves are held by national oil companies (NOCs) that are either partially or fully controlled by sovereign governments, which often do not have the same incentives as profit-maximizing firms to supply oil to the market

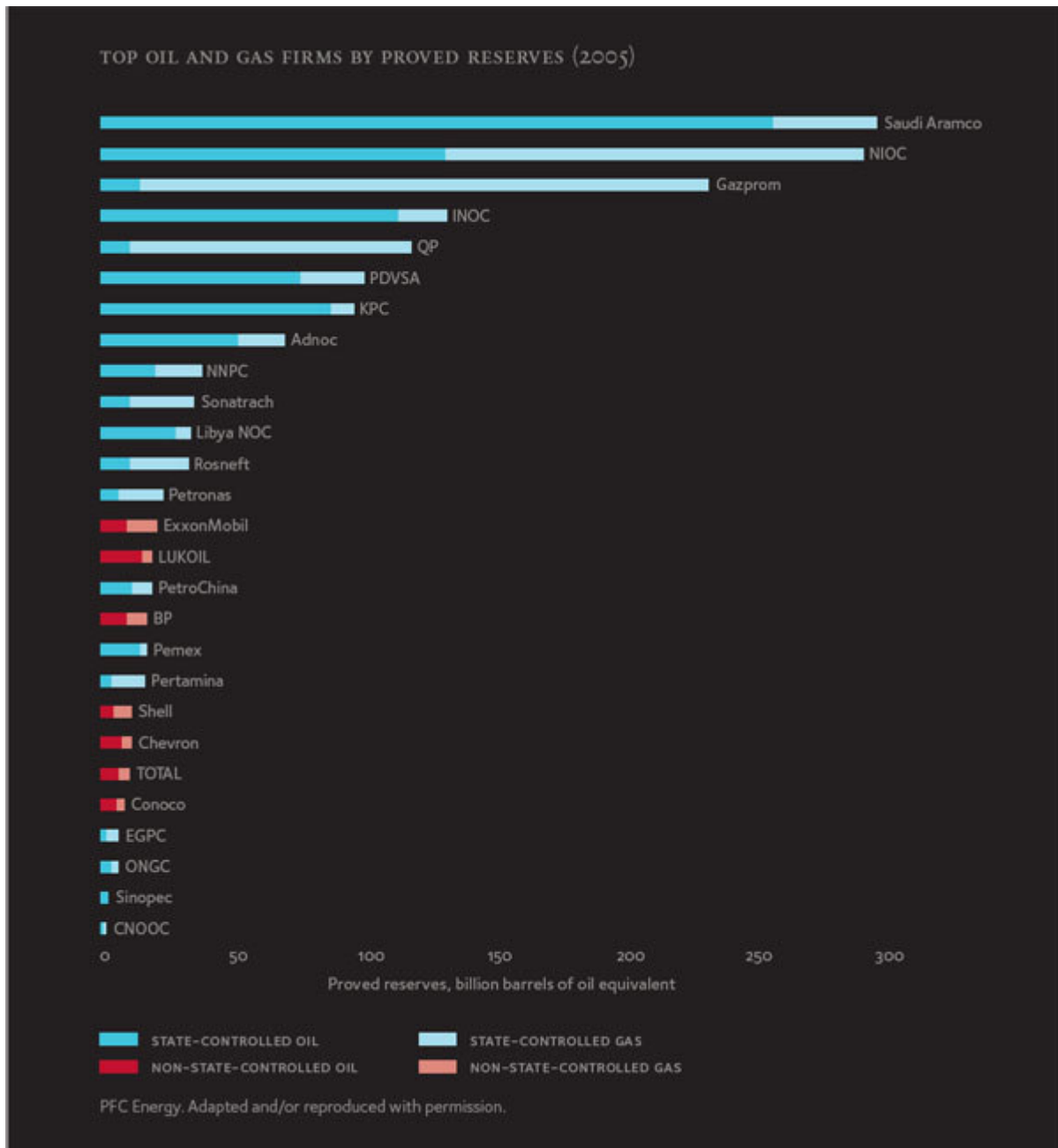
energy financier T. Boone Pickens alone recently spending a million dollars of his own money to amplify a similar message.

The report also notes that the situation is complicated by the fact that oil doesn't truly operate as a free market.

"Oil prices may be a function of the laws of supply and demand, but the global oil market does not operate freely. At least 75 percent—and by some estimates as much as 90 percent—of all oil and natural gas reserves are held by national oil companies (NOCs) that are either partially or fully controlled by sovereign governments, which often do not have the same incentives as profit-maximizing firms to supply oil to the market," the report noted. "Besides being politicized, the oil market is also distorted by the presence of large economic externalities, such as military expenditures, that are not directly accounted for in the price paid by consumers." (See illustration next page.)

Council on Energy Security Report Says Electrification of Transport Key to Reducing Oil Use and Vulnerability (Con't)

State-Controlled National Oil Companies (NOCs) Hold Most off the World's Oil and Gas Reserves. The Six Largest NOCs have Ten Times the Reserves of the Top Six Privately

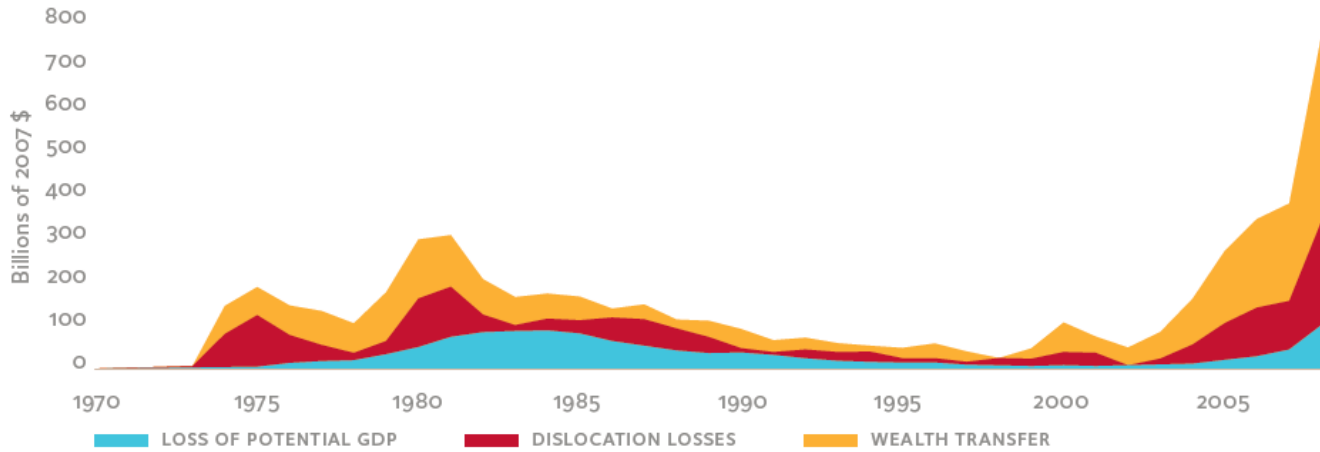


What to do about? Highlights of the report's recommendations are provided below. A copy of the full report is available for download: [A National Strategy For Energy Security](#).

Diversify Energy Supplies for the Transportation Sector: Since transportation represents about two-thirds of total oil consumption, it is the natural place to start in reducing consumption levels. The

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COSTS OF OIL DEPENDENCE TO THE U.S. ECONOMY: 1970-2008
(2008 BASED ON JULY EIA SHORT-TERM ENERGY OUTLOOK)



Source: David L. Greene, ORNL

key, the commission says, is to “successfully electrify our ground transportation vehicles, so that we fundamentally reduce the nation’s oil dependence.”

The Council has published a series of policy recommendations for the government to help accelerate the development of both electrical vehicle technology and the enhancement to the electric grid infrastructure needed to support those vehicles. It views a future where that grid is supplied power by a range of technologies, from coal to wind to nuclear.

Increasing Energy Access: Expanding Domestic Supply: The Council believes the United States possesses significant reserves of oil and gas that can be developed in the coming years and used to directly offset imports. The report says the government should reduce restrictive laws and bureaucratic roadblocks to accessing oil both onshore and in offshore waters.

“Though the country will still require a signifi-

cant amount of oil in the transportation and industrial sectors [even as electric cars come to market], a greater portion of that oil will be produced within the United States, preserving national wealth and reducing the amount of America’s oil consumption that is directly vulnerable to a catastrophic oil supply interruption,” the report says.

Accelerating the Development and Deployment of New Energy-Related Technology: US government research spending on energy has fallen dramatically in the last 30 years, and R&D by private US companies fell 50% between 1991 and 2003 (largely attributable, it would seem, to the low energy prices during that period).

Regardless, the Council says that not only must energy R&D spending be increased and encouraged, “a new sense of mission and purpose must be cultivated using a goal-oriented approach within relevant federal agencies, national laboratories, universities, and the private sector.”

Reducing Demand for Oil: Improving Efficiency: The Council supports changes in the Corporate Average Fuel Economy (CAFE) standards to get overall fuel effi-

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ciency of US cars to about 35 miles per gallon by 2020. It likes recent changes to CAFÉ regulations that get down to improvements at the individual vehicle level, not the blanket, fleet level requirements for automakers that existed previously.

To date, truck manufacturing has not been subject to CAFÉ rules. However, the Council would like to see standards there, and "believes 4 percent annual rates of improvement in fuel economy are attainable for the nation's medium- and heavy-duty vehicle fleet. Indeed, we are convinced that an aggressive but cost-effective pursuit of the highest possible fuel economy is essential for U.S. national security."

Managing Risks and Global Issues: Energy must more explicitly be an integral part of overall US security, the Council says.

"The Department of Defense, the State Department, and the various branches of the intelligence community must consciously focus on issues of energy supply as part of their comprehensive pursuit of national security," the report

states. "Working in concert, they must develop policies and strategies that protect the global infrastructure, secure key geographic transit areas, and mitigate political instability in energy-supplying countries."

In the end, the first recommendation, on moving rapidly towards electric vehicles, is the major piece of the Council's recommended strategy.

On a recent radio interview, FedEx' Smith said he did not believe natural gas powered vehicles were the way to go, as that fuel would be better applied to other industrial applications.

"The Council maintains that *fuel diversity* is the key to *energy security*," the report concludes. "For decades, the nation has been exposed to the concentrated risk of oil dependence. Going forward, multiple and redundant energy options must be pursued in order to preserve the nation's strategic flexibility. Within the transportation sector, electrification represents the pathway to meaningful fuel diversity that will end our dangerous dependence on petroleum."