

Moving the Navy and Marine Corps Off Fossil Fuels

Posted by Secretary Ray Mabus on January 24, 2011 at 04:26 PM EST



Secretary Ray Mabus at the Green Hornet flight on Earth Day in 2010.

In October 2009, as Secretary of the Navy, I established five ambitious goals to reduce fossil fuel consumption in the Navy and Marine Corps and increase the use of [alternative energy](#) to at least 50% of our energy requirements no later than 2020. These goals support the President's objective to create a new energy future and a clean energy economy for the United States, and the reasons for doing so are clear and compelling:

- Reducing our reliance on foreign sources of energy makes the country more secure. Competition over fossil fuel resources has been one of the leading sources of conflict for thousands of years. Today, little has changed – whether it is oil, natural gas, or electricity – disruptions in the flow of energy can cause major economic havoc and negatively affect both our national security and international stability.
- Reducing our reliance on fossil fuels makes our people safer. Getting fossil fuels to our troops on the front lines is one of the most dangerous things we do. In fact, we import more gasoline into Afghanistan than any other product. Moving fuel to our Forward Operating Bases (FOBs) means convoys, which means protecting our convoys with Marines and Sailors, taking them away from doing what we sent them to Afghanistan to do and making them vulnerable to IEDs and ambush. If we can reduce the number of convoys by making our systems more efficient, or generating power from solar energy at the FOBs, we make our troops safer.

- Increasing energy efficiency makes our ships, aircraft, and vehicles more tactically capable. A better engine on a plane means it can go farther, and stay airborne longer. Better engines on ships results in less time spent refueling in vulnerable locations in port or at sea – a lesson we learned all too clearly with the USS COLE.
- Increasing alternative energy use by the Navy and Marine Corps helps create an alternative energy market. The Navy uses a third of the fossil fuels consumed by the Federal Government, which in turn uses about two percent of fossil fuels in America. The Navy and Marine Corps' plan helps spur private investment and ultimately moves the country toward a clean energy economy.
- Reducing the energy footprint of the Navy and Marine Corps significantly reduces our carbon footprint.

Since our objectives were announced, we have made great progress toward our goals:

- In Quantico, Virginia and in Twenty-Nine Palms, California, the Marine Corps established two expeditionary Forward Operating Base as test sites for alternative energy projects that can be used by our combat forces in Afghanistan. Because of the work done there, the Third Battalion, Fifth Marines, deployed this summer to Helmand Province and even in the midst of a contested environment, the Battalion has reduced its use of fossil fuel by 20 percent and reduced its logistical support requirements by successfully employing solar power systems at its bases and combat outposts.
- On [Earth Day](#) in April 2010, we tested an F/A-18 fighter jet on a camelina-based biofuel blend at supersonic speeds. In the months following, we extended testing to naval helicopters and, using an algae-based biofuel, to riverine combat craft. We have proved that our engines don't care what they use, performance on biofuel is just as good as performance on fossil-based jet fuel. Just as importantly, neither of these fuels impacts food supply, the carbon footprint in terms of production is low, and the cost of each is rapidly falling.
- For our surface ships, we have developed a hybrid electric drive for the USS MAKIN ISLAND that dramatically increases fuel efficiency. Over the ship's more than 30-year lifespan, she will save up to \$250 million in fuel costs – at today's prices. As we move forward over the next few years to extend this technology to other ships of the fleet, our savings will continue to grow.
- All across the United States, we are working with other federal departments, with industry, and with academia to move forward on alternative energy research and development. One of the most promising partnerships got underway last summer in Hawaii, which imports almost all its energy, when the Navy began a project with the Department of Agriculture, the Department of Energy, and the State of Hawaii to develop biofuel production in the State. Over the next few years, this project will help create a new industry for the Hawaii, will benefit local farmers and entrepreneurs, and will create locally produced fuel for ships of the Pacific Fleet based in Pearl Harbor.

Just as we have done for 235 years, the Navy and Marine Corps are leading the nation in adopting new technology to make our country more secure. With the assistance of scientists, engineers, entrepreneurs, farmers, and industry – and with the leadership and support of the President, we are helping to create a new energy future.