



RHUMB LINES

Straight Lines to Navigate By



October 7, 2010

Navy Shore Energy Approach

"In addition to pursuing renewable energy technologies, the Navy will significantly reduce our shore energy consumption through efficiency upgrades and changes in culture and behavior. By dramatically reducing our consumption, our aggressive renewable energy goals become more achievable."

– The Honorable Jackalyn Pfannenstiel, Assistant Secretary of the Navy for Energy, Installations and Environment

Energy Security is a Strategic Imperative. The Navy is committed to providing mission-critical assets ashore with reliable, resilient and redundant power. The Navy is reducing its vulnerabilities tied to the electrical grid by lowering energy consumption and then integrating viable alternative energy technologies.

The Navy's approach to shore energy has three pillars: energy efficiency; culture and behavior; and renewable energy and sustainability. Focusing on these areas will increase the nation's energy security as well as enable the Navy to comply with federal mandates and meet the [Secretary of the Navy's energy goals](#).

Pursuing Efficiency First

- Increasing the energy efficiency of new and [current infrastructure](#) is the most cost-effective way to reduce energy consumption, protect critical assets, and enable renewable technology development.
- All [new construction](#) and major renovation projects must meet national green building standards through [Leadership in Energy and Environmental Design Silver](#) Certification by demonstrating energy savings, water efficiency, CO2 emissions reduction, resource stewardship and minimal environmental impact.

Transforming Navy Culture and Behavior

- The Navy is changing our energy culture by linking energy consumption to behavior through awareness and accountability at the individual, command and functional levels.
- The Navy is investing in facility management experts and systems, as well as other enabling technologies like Advanced Metering Infrastructure, to provide leaders greater visibility of energy consumption. This technology also will further enable renewable power generation.

Pursuing Renewable Energy and Sustainability

The Navy is pursuing renewable and alternative energy technology using a "Watch-Partner-Lead" approach:

- "Watch" maturing technologies and invest when/where viable (Example: [wind](#) and [solar](#) energy).
- "Partner" to develop needed technologies with other government organizations and/or industries (Example: secure "[Smart-Grid](#)").
- "Lead" the development of mission-critical technologies (Example: [ocean energy](#) for island bases).

Key Messages

- Energy Security is critical to mission success. Energy security safeguards our energy infrastructure and shields the Navy and Marine Corps from a volatile energy supply.
- Energy efficiency increases mission effectiveness. Efficiency improvements minimize operational risks, saving time, money and lives.
- [Environmental stewardship](#) protects mission capabilities. Investments in environmentally responsible technologies afloat and ashore lessen dependence on fossil fuels and reduce green house gas emissions.

Facts & Figures

- The Navy's shore energy use is down more than 14 percent since 2003. Today, the Navy produces 12 percent of its total annual energy needs from renewable sources.
- The Navy has reduced the fossil fuel use of its non-tactical vehicle fleet by 30 percent since 2005.
- The Navy is a leader in geothermal energy. Naval Air Weapons Station China Lake's 270-megawatt [geothermal plant](#) creates enough clean energy to power more than 270,000 homes.
- Follow [@navalenergy](#) on Twitter for updates.