

**Remarks as delivered by
Vice Chief of Staff of the Army
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OSD Energy Security Moderated Discussion
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Good morning! I appreciate the opportunity to participate in today's discussion on the important topic of energy security.

As you are well aware, the United States Army is a significant consumer of energy, accounting for 21 percent of DoD's fuel and power consumption. Energy powers our tanks, aircraft, and battle formations; allows for communication of voice and data directly to Soldiers; and, enables our Army to deploy and perform anywhere in the world to accomplish our mission across the full spectrum of operations. Without energy, the Army stands still and silent.

In an effort to improve our energy security, the Army is reforming our posture to maintain the capabilities we need to provide our deployed forces, global installations and individual Soldiers with reliable and uninterrupted access to power and fuel. We're doing this two ways... by increasing energy efficiency and reducing consumption.

First, to provide a pathway to an end-state of high energy security, the Army's Senior Energy Council approved the Army Energy Security Implementation Strategy, establishing five strategic energy security goals for the Army. They are:

- Reduced Energy Consumption;
- Increased Energy Efficiency Across Platforms and Facilities;
- Increased Use of Renewable/Alternative Energy;
- Assured Access to Sufficient Energy Supply; and
- Reduced Adverse Impacts on the Environment

On the home front, the Army is currently engaging in studies and developing plans designed to help reduce energy consumption, increase energy efficiency, and increase use of renewable energy.

Congress provided the Army \$2.7B in *American Recovery and Reinvestment Act 2009* funding, of which \$826M went for energy related initiatives. The Army divided the funding among three main focus areas: Sustainment, Restoration & Modernization; Energy Conservation Investment Program; and, Research, Development, Testing & Evaluation.

Projects include ground source heat pumps, geothermal test wells, solar water heating and solar walls. Efforts also include the research and development of energy from fuel cells, wind, solar, and other renewable energy sources.

In concert with these and other efforts to improve energy efficiency on our installations, the Army is focused on further improving efficiencies in theater. Our experiences to date have exposed some weaknesses and highlighted some vulnerabilities ranging from reduced endurance and mobility to a cumbersome and expensive logistics tail that our enemies target daily.

We are taking a systematic approach to address these broad challenges; an approach that meets operational needs, promotes technology development, increases system energy productivity, streamlines logistics, improves energy management and incorporates alternative and renewable energy sources.

Already we've taken a significant step to improve our energy security by using the Fully Burdened Cost of Fuel as we conduct the Analysis of Alternatives for the future Ground Combat Vehicle, the Joint Lightweight Tactical Vehicle and the Armed Aerial Scout. This approach enables us to make informed decisions about alternatives and define energy efficiency performance parameters in capability documents for our Program Managers and Original Equipment Manufacturers.

In the future, we are planning additional work in areas such as more efficient generators and power distribution. Bringing tactical, small-scale microgrids on-line with advanced power sources should ultimately reduce our in-Theater JP-8 demand by 30-60 percent.

In the interim, we've identified an immediate area of opportunity with a modernized engine for the UH-60 and AH-64, which is estimated to improve net energy efficiency by 12 percent. Of course the reality is not all solutions will be big pieces of equipment or new vehicles. Many are technologies on a much smaller scale such as spray foam tent insulation and shower water recycle systems—investments whose direct energy savings pay off in a matter of months.

Across the board in the science and technology arena, we are on the cusp of some truly exciting developments in the power and energy sector. If you haven't already visited the displays in the courtyard, I'd encourage you to take a look at the different areas of opportunity the Army is currently exploring.

Looking ahead, we must continue to make operational energy an integral part of our planning and execution processes to assure decisive victory in the future. I am confident we can and will do better!

Thank you again for your commitment to this important issue. I look forward to the questions and discussion.

Army Strong!