

USAF Scientific Advisory Board
FY 2009 Summer Study
Alternative Sources of Energy for U.S. Air Force Bases
Terms of Reference

Background

U.S. Air Force installations, both CONUS and OCONUS are reliant on energy that is supplied via the local power grid. If the energy supply to these installations were disrupted, diminished, or denied, the operational and national security consequences could be considerable. Self-sustaining, alternative energy sources for AF installations could mitigate risks of power loss due to vulnerabilities in the local and national power grids and their aging infrastructure.

Study Products

Briefing to SAF/OS & AF/CC in July 2009. Publish report in December 2009.

Charter

This study will:

- Evaluate and assess current and projected Air Force installation energy needs, including consumption, conservation, and potential vulnerabilities to grid and other upsets. Consider both domestic and overseas bases, including expeditionary bases.
- Identify alternative energy sources for installations including energy generation and storage systems.
- Assess the potential benefits and challenges associated with identified alternatives. Explore the environmental, political, economic, and societal considerations in this assessment, as well as the ability for the base to operate independently of local power grids.
- Recommend potential energy technologies and systems that could be used for improved energy reliability, conservation, utilization, and independence for Air Force installations in the near-, mid-, and far-term.