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(Installations and Environment)

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Fiscal Year 2010

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Executive Summary

The Department of Defense (DoD) is pleased to submit this Fiscal Year 2010 Annual Energy Management Report (AEMR) to the Federal Energy Management Program of the Department of Energy.[1]

This report documents the progress that DoD has made in energy management, and outlines the challenges we face in making further reductions in energy intensity and improvements to DoD's security. As a management tool, this report provides the top-level information required to guide the Department's strategic energy choices. Finally, this report is required to comply with the mandates of numerous laws, regulations, and policy directives. This report focuses on energy used by military installations and non-tactical vehicles. For ease of discussion, this report refers to both as "facilities energy."[2]

Reducing facilities energy demand, enhancing energy security, facilitating innovative energy research and development, and increasing the use of renewable energy sources are important priorities for the Department of Defense. Over the last five years, the Department has steadily reduced energy consumption per square foot at its permanent installations. While continuing that positive trend, DoD is adapting its approach to installation energy management from one that is primarily focused on compliance to one that is focused on long-term cost avoidance and mission assurance. Facilities energy is of great importance to DoD for many reasons, including:

- Mission Assurance: Military facilities depend on reliable sources of energy to operate, train, test new systems, and conduct other essential national security missions. DoD's reliance on a fragile commercial grid to deliver electricity to its installations places the continuity of those missions at serious and growing risk. Most installations have a limited ability to manage their supply of electrical power and are thus vulnerable to intermittent and/or prolonged power disruption due to natural disasters, cyber attacks, and other outages in the commercial grid.
- Significant Cost: DoD's facilities energy costs totaled approximately $4.0 billion in FY2010. This is a substantial sum, and energy cost savings can be reallocated to DoD priorities such as military operations, training, research and development, and system modernization.
- Environmental Impact: Facilities energy use accounts for a disproportionate share of DoD greenhouse gas emissions. Facilities energy accounts for 26 percent of DoD energy use, but 40 percent of greenhouse gases. Reducing facilities energy use, therefore, has a disproportionately positive effect in reducing greenhouse gas emissions.

The Department is addressing its energy management challenges through its facilities energy strategy. Under our strategy, the DoD seeks to reduce energy demand through energy efficiency and conservation, increase energy supplied by renewable and alternative sources, support technology innovation to develop management systems and clean energy technologies and improve energy security to reduce the risks posed by disruption of the electric grid.

By reducing its demand for traditional energy and diversifying its energy supplies, DoD will decrease the impact of energy interruptions and become more resilient. By taking advantage of those installations that can support solar, wind, geothermal and other forms of renewable energy, DoD will reduce its dependence on fossil fuels and improve energy security. By working with academia and the private

[1] Appendix A provides a definition for all acronyms used in this report.
[2] This report does not address operational energy.

sector on new technology innovations, DoD can evaluate the technical validity, cost, and impact of advanced pre-commercial technologies and take advantage of immediate cost savings and further technology advances. And, by working to improve energy security and minimize the risk from potential disruptions to the commercial grid, DoD will ensure that our energy supply is available when and where it is needed.

DoD measures its facilities energy performance against standards set in law. Three key laws establish the most important standards: (1) the Energy Policy Act of 2005 (EPAct 2005); (2) the Energy Independence and Security Act of 2007 (EISA 2007); and (3) Section 2911 of Title 10 of the United States Code. This report serves as the reporting mechanism to track DoD's compliance with these standards. Table ES.1 highlights DoD's FY2010 performance, relative to the applicable standard, as defined by these laws.

Starting with the FY2010 reporting period, DoD began tracking compliance with energy performance standards at the individual installation level. For example, Appendix I lists energy consumption and intensity for all DoD installations. This change was done to enhance the Department's capability to identify the best opportunities for future energy performance improvements. As DoD holds the Services accountable for their energy performance, we expect the Services to hold their installation commanders accountable for theirs.

Table ES.1 indicates that DoD has made substantial progress in recent years by decreasing its energy intensity, potable water intensity, and petroleum consumption in non-tactical vehicles. Renewable energy has also proven to be an important source of energy for DoD. In FY2010, however, the Department fell short of its goals for energy intensity, renewable energy use, and petroleum consumed by non-tactical vehicles, but exceeded its goal for reducing the use of potable water. DoD remains committed to meeting all goals established in law, though it faces challenges in attaining some of them.

Table ES.1 FY2010 DoD Progress: Mandatory Energy And Water Management Goals

Objective & Basis of Requirement	Metric	DOD Component	FY2010 Actual	FY2010 Target
Reduce facilities **energy intensity** relative to FY2003 baseline (Energy Independence and Security Act of 2007, §431)	British Thermal Units (BTUs) of energy consumed per Gross Square Foot of facilities space	Department-Wide	-11.4%	-15.0%
		Army	-8.7%	
		Navy	-13.7%	
		Air Force	-14.9%	
Consume more electric energy from **renewable resources** (Energy Policy Act of 2005, §203)	Total renewable electricity as a fraction of total facility electricity consumption	Department-Wide	+4.1%	+5.0%
		Army	+2.0%	
		Navy	+0.9%	
		Air Force	+6.4%	
Produce or procure more energy from **renewable resources** (10 USC 2911(e))	Total renewable energy (electric and non-electric) as a fraction of total facility electricity consumption	Department-Wide	+9.6%	+10.0%
		Army	+5.6%	
		Navy	+18.7%	
		Air Force	+8.1%	
Reduce potable water intensity relative to FY2007 baseline (Executive Order 13423)	Gallons of water used per Gross Square Foot of facilities space	Department-Wide	-12.9%	-6.0%
		Army	-15.3%	
		Navy	-9.2%	
		Air Force	-11.3%	
Reduce **petroleum consumption** in non-tactical vehicles relative to FY2005 baseline (Energy Independence and Security Act of 2007, §142, Executive Order 13514 §2(a)(iii))	Gasoline-equivalent gallons of fuel used	Department-Wide	-5.3%	-10.0%

The Department is optimizing its traditional funding sources (operations and maintenance appropriations and the Military Construction and Energy Conservation Investment Programs) to support these energy performance improvements and leverage additional energy savings in the design of new buildings and structures and the improvements to existing ones. We have recognized that we must pursue additional energy improvements using third party financing through Energy Savings Performance Contracts and Utilities Energy Service Contracts to help meet our performance goals, and we have advocated using other innovative financing mechanisms, such as Enhanced Use Leases and Power Purchase Agreements when they provide the opportunity for us to engage with the private sector to develop new projects and gain energy savings.

In FY2010, DoD began development of a new enterprise energy information management system to monitor, measure, manage, and maintain energy systems at optimal performance levels. We cannot manage what we cannot measure, but by making information usage available to installation commanders and higher headquarters, they will be able to manage their energy enterprise more effectively and efficiently.

DoD's strategy for facilities energy addresses the critical role that technological innovation plays in improving energy performance. Through the Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP), DoD is investing in emerging technologies that hold the promise to reduce and manage energy demand, increase the supply of renewable energy, enhance energy security, and improve energy efficiency in buildings.[3]

DoD has pledged to work with industry to develop additional technical mitigation solutions to keep pace with renewable energy growth across the nation. In FY2010, DoD established an Energy Siting Clearinghouse to better coordinate with developers on the choice of sites for wind turbines, solar towers and other renewable projects to minimize the occurrence of incidents where DoD's mission needs directly conflict with development plans. The Clearinghouse has strengthened DoD's commitment to promoting compatibility between energy independence and military capabilities.

This report explains how DoD is addressing these priorities, the successes achieved to date, and challenges for the years ahead.

- Section 1 provides an overview of energy use at DoD, with a focus on facilities energy, and then describes the goals, strategies, and activities of the facilities energy program. It closes with a discussion of the legal reporting requirements to which this AEMR responds.

- Section 2 addresses DoD progress in reducing facilities energy demand and provides greater detail on the derivation of the results shown in Table ES.1 related to energy consumption and intensity, water consumption and intensity, and petroleum use in non-tactical vehicles.

- Section 3 addresses a number of topics related to renewable energy at DoD facilities, including the derivation of the results shown in Table ES.1 regarding progress toward renewable energy goals. This section concludes with an analysis suggesting that DoD has

[3] SERDP and ESTCP are not addressed further in this report, but more information can be found at http://www.serdp.org.

over 33,000 billion British thermal units (BBTU) of renewable energy project potential. Whether that potential can be realized as actual renewable energy depends on a number of factors such as mission impacts, legal complexities, and financial considerations.

- Section 4 covers DoD's progress toward net zero energy installations. A net zero installation is one that produces as much energy on-site or nearby as it consumes, and maximizes use of renewable energy sources. Four installations (one per Military Department) are being used to develop and test a template for net zero analyses. An additional 40 installations have been identified as candidate net zero installations.

- Section 5 discusses energy program management within the Office of the Secretary of Defense, the Military Departments, and Defense Agencies. It describes the relevant organizational structures and reporting relationships.

- Section 6 addresses energy project funding and contrasts projects funded by appropriations with projects funded by third-party financing. It also explains the use of the Military Construction (MILCON) program to support energy initiatives.

- Section 7 discusses federal building efficiency standards and DoD's efforts to meet the building energy performance standards specified in American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 90.1. DoD's progress in meeting the Leadership in Energy and Environmental Design (LEED) standards for buildings is also described.

- Section 8 discusses DoD's efforts to better monitor facilities energy performance. It describes DoD's substantial progress in installing meters for electricity, water, natural gas, and steam across its facilities. It then explains how newly available data are utilized in energy information management systems that are being developed and deployed.

- Section 9 briefly describes some of the key strategic planning activities of the Military Departments and selected Component Agencies.

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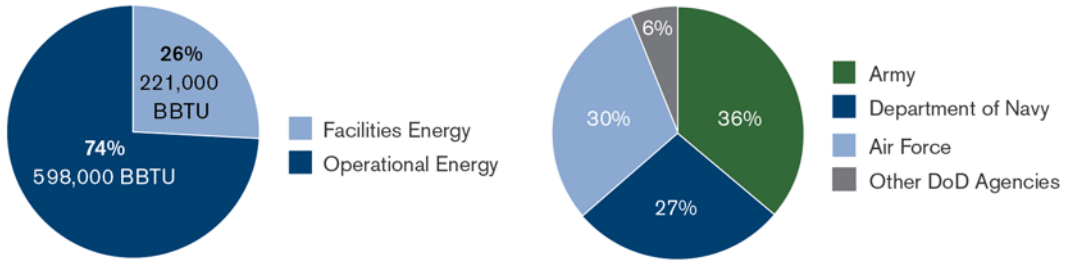
1 Overview

Section 1.1 below provides a brief review of energy consumption by DoD and Section 1.2 describes the Department's program for managing energy used by its facilities. The specific requirements to which this report responds are summarized next. The Department of Energy (DOE), under the Federal Energy Management Program (FEMP), requires DoD to submit an Annual Energy Management Report (AEMR). Beyond fulfilling FEMP's reporting requirements, the AEMR enables the Department to track and report on progress against facilities energy goals required by several relevant legislative statutes, executive orders, and internal DoD directives. Accordingly, Section 1.3 describes FEMP reporting requirements while Section 1.4 identifies other relevant reporting requirements covered in this AEMR.

DoD Energy Consumption

DoD accounts for approximately 80 percent of all Federal energy consumption and spent about $15.2 billion on energy in FY2010. Seventy four percent of total DoD consumption can be attributed to operations while the remaining 26 percent was consumed by the Department's facilities (Figure 1.1). Operational energy is used for military deployments, direct support of military deployments, and training in support of readiness for military deployment. Facilities energy comprises all other energy used at DoD's permanent installations and by its non-tactical vehicles. Well over 90 percent of total energy is used by the Military Departments, with about 6 percent used by other DoD Agencies.

Figure 1.1 DoD Energy Use In FY2010



In FY2010, DoD spent $4.01 billion on facilities energy, with $0.25 billion used for fuel for 160,000 non-tactical vehicles. About $3.76 billion was spent on energy for the Department's 507 permanent installations, which comprise more than 300,000 buildings and 200,000 other structures. These installations occupy approximately 28 million acres of land in the United States and overseas and include over 2.2 billion square feet of facilities space.

In addition to its high cost, DoD's use of facilities energy is important for at least two other reasons. First, facilities energy has a significant environmental impact, contributing a disproportionate share (about 40 percent) of the Department's total greenhouse gas emissions. Second, DoD is heavily dependent on the commercial electricity grid for its facilities energy. The fragility of this grid leaves DoD vulnerable to service disruptions and places continuity of critical missions at serious and growing risk.

Summary of DoD Facilities Energy Program

DoD's primary guidance on facilities energy management appears in DoD Instruction 4170.11, "Department of Defense Installations Energy Management Program." The instruction applies to all DoD Components, and pertains to all phases of administration, planning, programming, budgeting, operations, maintenance, training, and materiel acquisition activities that affect the supply, reliability, and consumption of facilities energy.

DoD's facilities energy program is designed to meet the requirements of several provisions of enacted legislation, as well as relevant Executive Orders issued by the President. (These requirements are described in more detail below and in subsequent sections of this report.) Three key goals drive the Department's initiatives to meet these requirements:

- an increase in facility energy efficiency,
- an increase in the proportion of energy coming from renewable sources, and
- reductions in water consumption and the intensity of water use.

Quantitative targets have been set for each of these key goals and progress on relevant metrics is being tracked annually under the facilities energy program. Appendix B illustrates DoD's FY2010 energy performance towards these goals. The Addendum to this report provides a summary of energy goal performance and supporting details for each of the Military Departments and ten DoD Component Agencies.

A strategic approach to energy management is a high priority for the Department. By changing traditional business models and practices, and by taking a holistic approach to energy management, the Department is making progress toward achieving its energy management goals. DoD's core strategy for facilities energy management seeks to:

- Reduce Energy Demand through energy efficiency and energy conservation measures, with a focus on both retrofitting of existing buildings and improvement of new construction,

- Increase Energy Supply of renewable and alternative energy sources such as solar, wind, and geothermal by considering both centralized and distributed power generation,

- Support Technology Innovation to develop management systems and clean energy technologies, and

- Improve Energy Security by addressing the threat of commercial grid disruption with risk mitigation plans and on-site generation capacity.

More specifically, DoD's facilities energy program includes activities such as integrated energy planning, demonstration and validation of innovative energy technologies, facility energy manager training, building audit programs, procurement of energy efficient products, and the use of sustainable design in new construction. Additionally, the program advocates the use of financial incentive programs, such as third party financing, to implement energy efficient strategies. The program includes the facility energy activities of the Military Departments and ten DoD Component Agencies:

- Department of the Army

- Department of the Air Force
- Department of the Navy (includes Marine Corps)
- Defense Contract Management Agency (DCMA)
- Defense Commissary Agency (DeCA)
- Defense Finance and Accounting Service (DFAS)
- Defense Intelligence Agency (DIA)
- Defense Logistics Agency (DLA)
- Missile Defense Agency (MDA)
- National Geospatial-Intelligence Agency (NGA)
- National Security Agency (NSA)
- TRICARE Management Agency (TMA)
- Washington Headquarters Services (WHS)

FEMP Reporting Requirements

Under FEMP, Federal agencies are required to submit annual reports to DOE. The reports summarize the agencies' facilities energy management programs and measure progress toward energy performance goals. DOE uses the information and data from the agencies' reports to develop the DOE Annual Report to Congress on Federal Government Energy Management.

This DoD Annual Energy Management Report complies with FEMP reporting requirements. It describes the Department's progress in meeting three sets of requirements. The first set of requirements originates in the Energy Policy Act of 2005 (EPAct 2005), which amended portions of the National Energy Conservation Policy Act (NECPA) and established energy management goals for Federal facilities and fleets in several areas. Under EPAct 2005, agencies must:

- Install advanced metering devices in all Federal buildings by October 1, 2012 for the purposes of efficient energy use and reduction in the cost of electricity,

- Incorporate energy efficient criteria consistent with ENERGY STAR® and FEMP-designated products into their product procurement process,

- Design new Federal buildings – commercial or residential – to exceed by 30 percent performance standards specified by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) and to reflect sustainable design principles, and

- Consume renewable electricity equal to at least 3 percent of all electricity consumed from FY2007 to FY2009, with increases to 5 percent in FY2010-2012, and 7.5 percent in FY2013 and thereafter.

Second, the Energy Independence and Security Act of 2007 (EISA 2007) and Executive Order (E.O.) 13423, "Strengthening Federal Environmental, Energy, and Transportation Management," set facility energy consumption reduction goals for all Federal agencies. More specifically, federal agencies must:

- Achieve annual reductions in energy intensity (measured as BTUs per gross square foot) relative to a FY2003 baseline, leading to a 30 percent decrease by 2015,
- Obtain at least 5 percent of all electricity consumed from renewable sources by FY2010, with an increase in the target to 7.5 percent by FY2013,
- Construct all new buildings to exceed the energy efficiency standard specified in ASHRAE 90.1-2004 by at least 30 percent,
- Meter electricity consumption at 100 percent of all covered facilities by FY2012,
- Achieve natural gas and steam metering capability by FY2015,
- Decrease potable water consumption intensity by 2 percent annually compared to an FY2007 baseline, leading to a 16 percent reduction from the baseline by the end of FY2015,
- Reduce fossil fuel use in new and renovated buildings by 55 percent in FY2010, compared to an FY2003 baseline, and by 100 percent in FY2030,
- Reduce annual petroleum consumption in vehicles by 20 percent, and increase annual alternative fuel consumption by 10 percent, relative to an FY2005 baseline by FY2015,
- Designate an energy manager for "appropriate" federal facilities covering at least 75 percent of the agency's energy use,[4] and
- Conduct facility energy and water audits for 25 percent of facilities annually and all appropriate facilities on a four year cycle.

Third, E.O. 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," expands on the energy reduction and environmental performance requirements identified in E.O. 13423 for Federal agencies. Under the new E.O., agencies must ensure that:

- All new federal buildings entering the design phase in 2020 or later are designed to achieve zero net energy[5] by 2030,
- At least 15 percent of existing agency buildings and leases (above 5,000 gross square feet) meet the Guiding Principles for High Performance and Sustainable Buildings by FY2015 and that annual progress is being made towards 100 percent compliance across the building inventory,
- Cost-effective, innovative strategies to minimize consumption of energy, water, and materials are being pursued,

[4]Note that DoD determined installations to be the appropriate federal facility designation to meet this requirement.
[5]A net zero installation produces as much energy on-site (or nearby) as it consumes and maximizes use of renewable energy.

- Potable water consumption intensity is reduced 2 percent annually through FY2020, or 26 percent by the end of FY2020, relative to the FY2007 baseline,

- Industrial, landscaping, and agricultural water consumption is reduced by 2 percent annually through FY2020, or 20 percent by the end of FY2020, against an FY2010 baseline,

- Water reuse strategies that are consistent with state law regulating potable water consumption are identified, promoted, and implemented, and

- Extends the EISA 2007 reduction in petroleum consumption in vehicles to 30 percent by 2020.

Other Reporting Requirements

In addition to the energy goals and program requirements of FEMP, DoD is subject to other legislative requirements relevant to facility energy use and reporting. Accordingly, this Annual Energy Management Report also responds to the following three specific requirements:

First, 10 U.S.C. Section 2925, "Annual Department of Defense Energy Management Reports," requires DoD to submit an annual installation energy management report to Congress.

Second, 10 U.S.C. Section 2911(e), "Goal regarding use of renewable energy to meet facility energy needs," outlines these requirements:

- DoD should produce or procure facility energy from renewable energy sources whenever the use of such renewable energy sources is consistent with the energy performance goals and energy performance plan for the Department.

- DoD's goal is to produce or procure not less than 25 percent of the total quantity of facility energy consumed within its facilities from renewable energy sources during FY2025 and each fiscal year thereafter.

Third, Section 332 of the FY2010 National Defense Authorization Act (NDAA), "Extension and Expansion of Reporting Requirements Regarding Department of Defense Energy Efficiency Programs," requires the Secretary of Defense to provide a supplementary First Expanded Report on DoD renewable energy potential and plans to include:

- A determination of the cost and feasibility of a policy that would require new power generation projects established on installations to be able to provide power for military operations in the event of a commercial grid outage,

- An assessment of the extent to which State and regional laws and regulations and market structures provide opportunities or obstacles to establish renewable energy projects on military installations,

- An assessment of the feasibility of meeting the Department's renewable energy goals with on-base renewable energy production rather than with renewable energy credits, and

- An assessment of the feasibility and cost of developing net-zero energy installations and a detailed assessment, by installation, of power production (including renewable energy) measured against energy consumption.

2 DoD Progress in Reducing Facilities Energy Demand

This section of the AEMR describes several aspects of DoD's efforts to reduce facilities energy demand. It begins with a review of total energy consumption in the Department and then addresses the intensity of energy use. Next, progress in reducing water use and intensity is characterized, with specific mention of industrial, landscaping, and agricultural water consumption. Finally, the Department's progress in reducing petroleum use in non-tactical vehicles is described.

Energy Consumption

DoD consumed about 211,000 billion British thermal units (BBTU) of energy during FY2010 in facilities subject to the energy intensity goal. As shown in Figure 2.1, DoD facilities energy consumption has been increasing since FY2007. Consumption has been on the rise due to enhanced training requirements, growing troop levels, and increased facility activity in support of wartime operations. In response, DoD continues to implement strategies to improve energy efficiency and diversify the sources of energy to include renewable technologies. For a full list of consumption, gross square footage and intensity for all DoD installations, see Appendix I.

Figure 2.1 DoD Facilities Energy Consumption Trends FY2006-2010

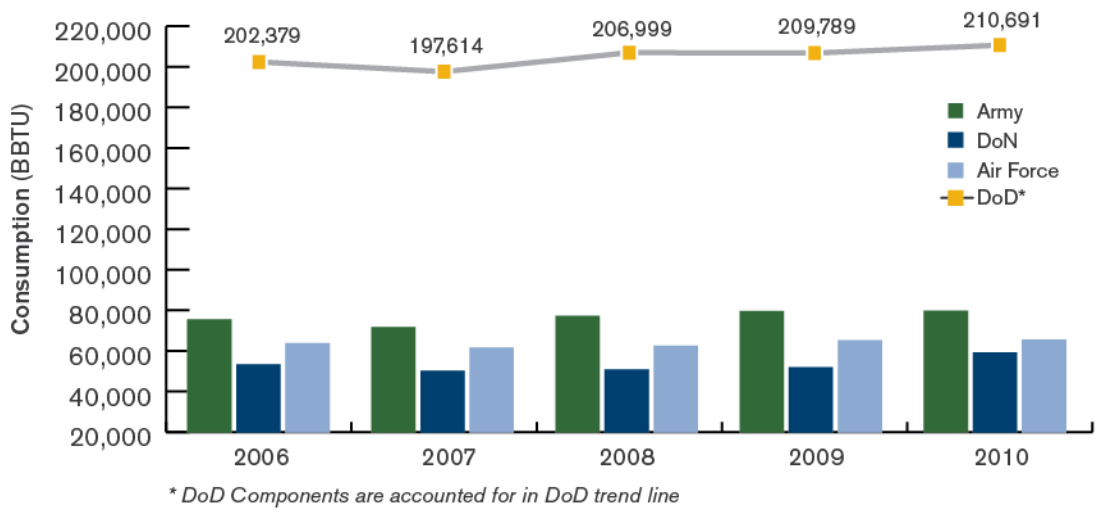


Figure 2.2 presents the breakdown of total DoD facilities energy consumption by Component. The vast majority (approximately 94 percent) of FY2010 consumption was by the Military Departments, with the remaining consumption spread across several DoD Agencies. As illustrated in Figure 2.3, approximately 80 percent of the energy consumed by DoD facilities in FY2010 came from electricity and natural gas. DoD also used small percentages of fuel oil, coal, purchased steam and liquefied petroleum gas (LPG), propane, and other fuels in its facilities.

To reduce its energy consumption, DoD has continued its investment in energy technology. These include technologies to improve the conservation and efficiency of building energy use. For example, DoD components are retrofitting buildings with energy efficient systems, such as improved lighting, high-efficiency HVAC, double-pane windows, and new roofs. They are also implementing energy control systems to improve the management of local energy loads. DoD Components are working on micro-grids, alternative fuels, battery and energy storage systems and other systems to improve energy efficiency.

DoD continues hosting on installations an array of renewable energy systems including solar, wind, geothermal and waste to energy technologies.

Figure 2.2 DoD Energy Consumption By Component FY2010

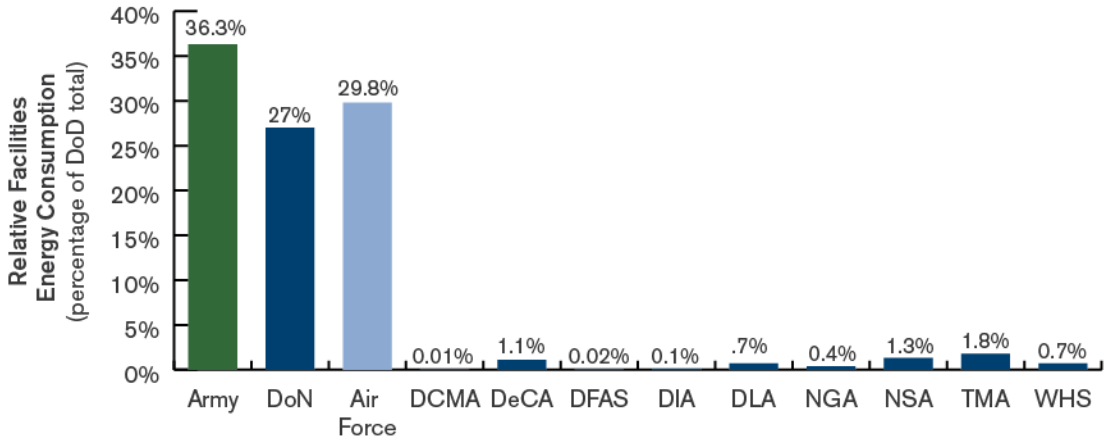
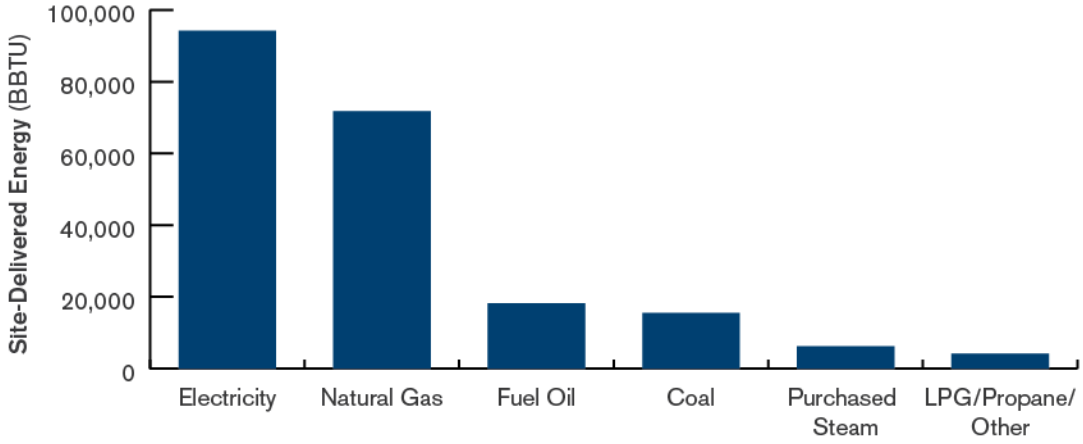


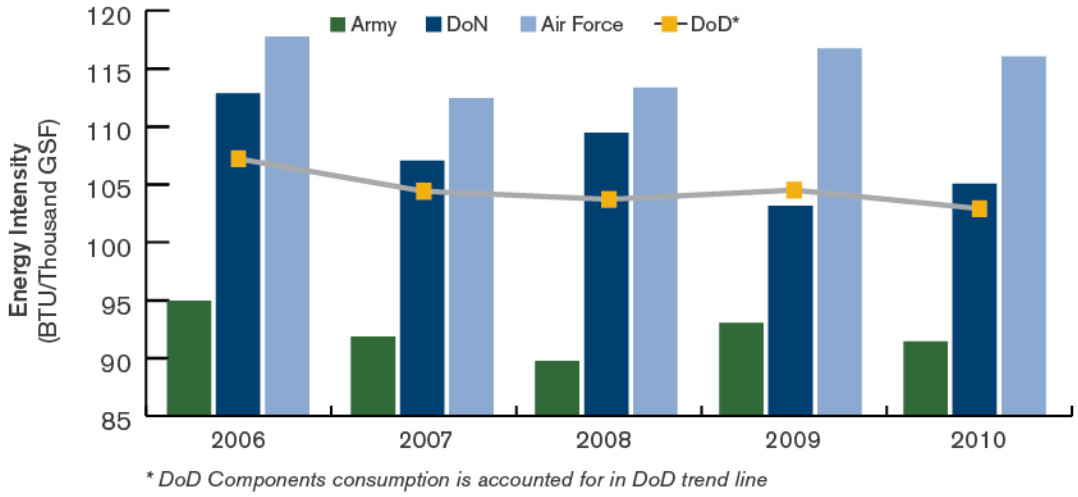
Figure 2.3 DoD Site-Delivered Energy By Type FY2010



Energy Intensity

DoD decreased its overall energy intensity to 102.9 thousand BTUs per Gross Square Foot (GSF) in FY2010. Figure 2.4 shows the overall decreasing trend in DoD energy intensity from FY2006 to FY2010.

Figure 2.4 DoD Energy Intensity Trend FY2006-2010

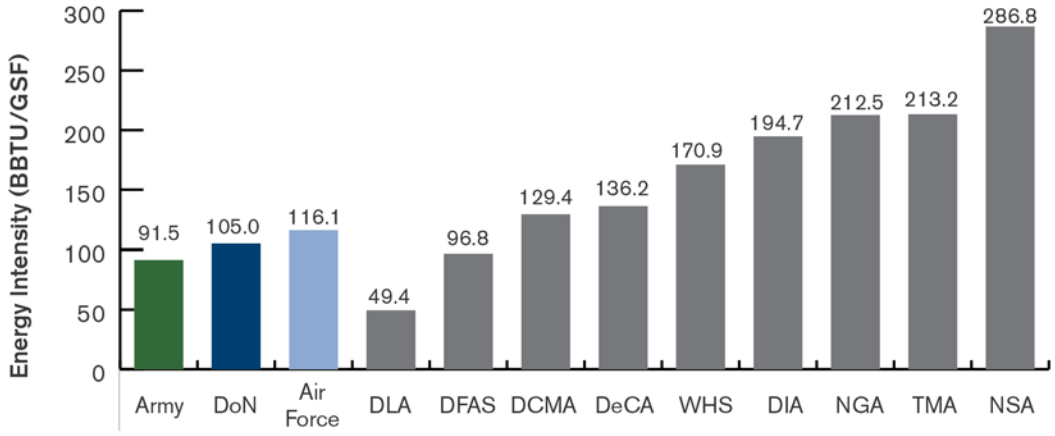


In FY2010, there was a wide range of energy intensity values among DoD Components, as shown in Figure 2.5. The National Security Agency (NSA) had the highest value (over 286,000 BTUs/GSF) and the Defense Logistics Agency (DLA) had the lowest value (less than 50,000 BTUs/GSF). The Army had the lowest energy intensity value of all the Military Departments, with 91,500 BTUs/GSF in FY2010.

High energy intensity results in Figure 2.5 correspond to those agencies that require energy-intensive equipment. For example, NSA has a relative small building footprint, but consumed large quantities of electricity for computing. Similarly, the TRICARE Management Agency's (TMA's) square footage included hospitals, which are among the highest-consuming building types.

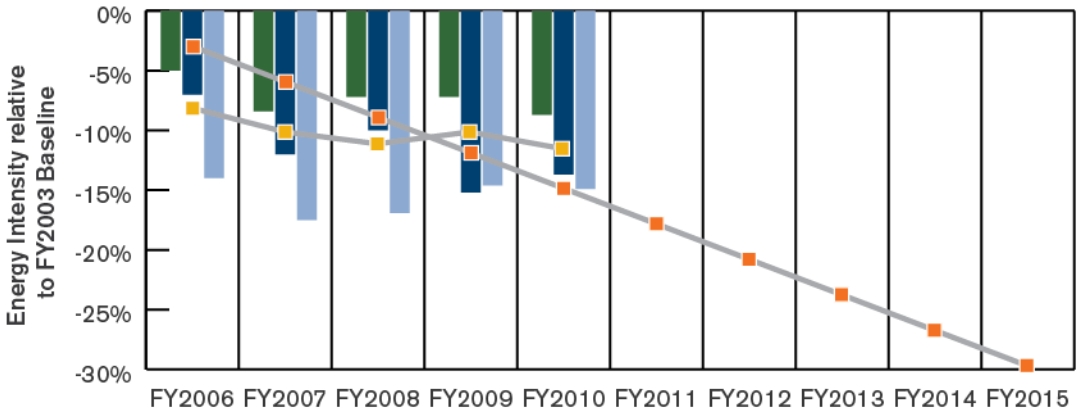
Although several DoD Agencies had high energy intensity values, in total they only consumed approximately 6 percent of total DoD site-delivered energy (Figure 2.2). As a consequence, the intensity of energy use by these Agencies has only a limited impact on the aggregate intensity of energy use by the Department as a whole.

Figure 2.5 DoD Energy Intensity By Component FY2010



In FY2010, DoD decreased total facility energy intensity by 11.4 percent compared to the FY2003 baseline, as shown in Figure 2.6. The Department did not, however, achieve the FY2010 goal of a 15 percent reduction in energy intensity.

Figure 2.6 DoD Energy Intensity Compared To EISA 2007 Goal*



	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
Army	-5.0%	-8.4%	-7.2%	-7.2%	-8.7%					
DoN	-7.0%	-12.0%	-10.0%	-15.2%	-13.7%					
Air Force	-14.0%	-17.5%	-16.9%	-14.6%	-14.9%					
DoD*	-8.0%	-10.0%	-11.0%	-10.0%	-11.4%					
EISA 2007 Goal	-3%	-6%	-9%	-12%	-15%	-18%	-21%	-24%	-27%	-30%

** DoD Components are accounted for in DoD trend line*

In FY2010, the Army reduced energy intensity relative to its FY2003 baseline by 8.7 percent. This is a 1.5 percent improvement from the FY2009 energy intensity. In FY2010, the Army took organizational steps to increase senior leadership emphasis on energy management. The Army is investing in metering and data management, improving facilities energy designs, and growing its private industry partnership program.

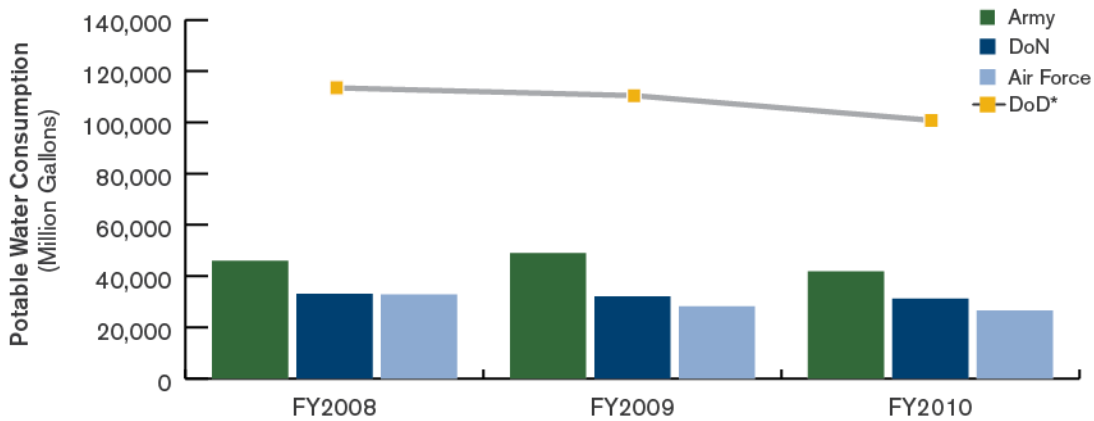
In FY2010, although the Air Force was nearly on target with a 14.9 percent intensity reduction, its intensity is roughly the same as FY2009. To continue meeting its energy goals in the future, the Air Force remains committed to a robust energy management program. The Air Force will accelerate its use of private financing contracts and continue to support its existing program of conducting facility audits, hiring energy managers across the organization, and getting the most out of its existing facilities through retro-commissioning.

The Department of the Navy had an energy intensity reduction of 13.7 percent. The Navy plans to exceed the EISA 2007 energy intensity goal. The Secretary of the Navy directed the Navy and Marine Corps to reduce energy intensity by 50 percent by 2020. The Department of the Navy is aligning its leadership and resources to implement its plan, which includes a robust energy audit program and a commitment to fund cost-effective energy conservation opportunities. The Navy also seeks a major reduction in source energy consumption through cogeneration, which today accounts for about 6 percent of its total intensity goal attainment.

Potable Water Consumption

In FY2010, DoD facilities consumed over 101,000 million gallons of potable water (Figure 2.7), with the Military Departments accounting for 98 percent of total DoD consumption. Total DoD consumption decreased 8.7 percent from FY2009 consumption levels, which is driven primarily by a significant decrease in Army potable water consumption in FY2010.

Figure 2.7 DoD Potable Water Consumption Trend FY2008-2010*



	FY2008	FY2009	FY2010
Army	45,937	48,971	41,850
DoN	33,111	32,104	31,184
Air Force	32,824	28,148	26,535
DoD	114,627	111,579	101,824

** DoD Components are accounted for in DoD trend line*

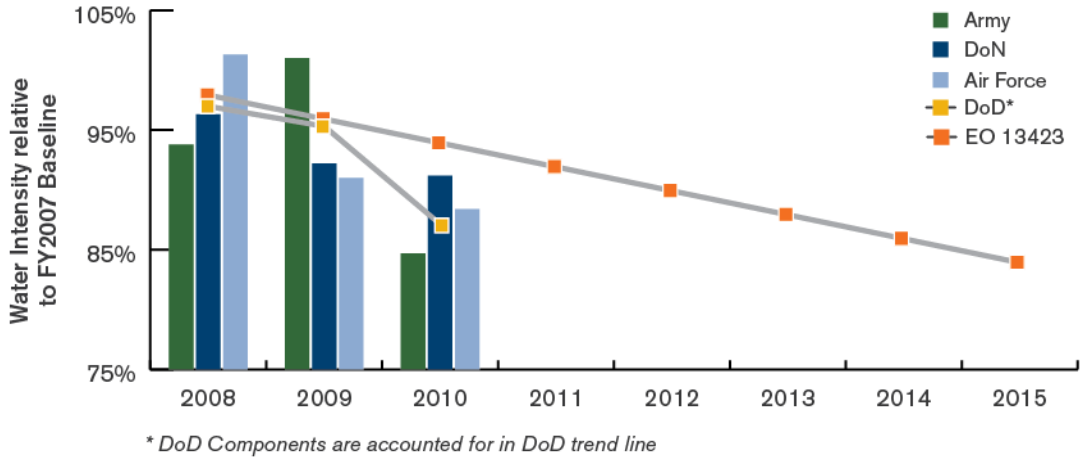
Examples of measures implemented to decrease water consumption at military facilities in FY2010 include:

- Hanscom Air Force Base (AFB) repaired leaks in the steam and condensate distribution system and reduced boiler make-up water requirements by over 5 million gallons per year.
- The Army initiated a number of water-saving initiatives related to utilities privatization, which included the replacement of a 20 year-old water distribution system at Fort Rucker and the development of a non-potable landscape irrigation distribution system to reduce demand on the potable water supply at Fort Gordon.
- The Naval Air Station Sigonella, Italy began operation of a new water reuse system that uses effluent from a wastewater treatment plant for lawn irrigation, saving 32 million gallons of water annually.

Potable Water Intensity

Potable water intensity is defined as the number of gallons used per gross square foot of facility space. In FY2010, DoD facilities decreased their overall potable water intensity by 13 percent compared to the FY2007 baseline (Figure 2.8). This is ahead of the 6 percent reduction target for FY2010 specified in E.O. 13423. E.O. 13423 mandates a reduction in water consumption intensity of 16 percent by the end of FY2015.

Figure 2.8 DoD Water Intensity Trend Towards E.O. 13423 Goal*



In FY2010, the Army experienced a 15.3 percent reduction in water intensity from the FY2007 baseline. The Army's water conservation program continues to develop initiatives to ensure continued progress toward reaching mandated water use reduction targets. For example, in FY2010, Fort Benning reduced its water consumption by 49 percent relative to the FY2007 baseline though water efficient design and retrofits in facilities, as well as upgrades to privatized water systems.

In FY2010, the Air Force achieved an 11.3 percent reduction in intensity from the FY2007 baseline. The majority of this reduction is attributed to continued water conservation efforts. For example:

- Randolph AFB installed low-flow showerheads in new facilities, and limited water flow rates to 2.0 gallons per minute, yielding an annual water savings of 1 million gallons;
- Sheppard AFB accomplished various maintenance projects, including valve repairs, assorted water main leak repairs, and installation of low-flow fixtures and realized a savings of 4 million gallons annually; and
- Dover AFB completed a heat plant decentralization and upgrade project that has yielded an estimated 16 million gallon savings per year.

In FY2010, the Department of the Navy achieved a 9.2 percent reduction in water intensity compared to the FY2007 baseline. The Department employed a wide variety of water reduction techniques to meet mandated targets. For example, in FY2010, Naval Base Point Loma installed more than 2,000 low-flow 1-gallon-per-minute faucet aerators throughout the base. As a result, the base achieved a 55 percent reduction in the amount of water used by sink faucets.

Industrial, Landscaping, and Agriculture Water Consumption

In FY2010, E.O. 13514 added a new water reduction requirement that federal agencies reduce Industrial, Landscaping, and Agriculture (ILA) water use compared to a FY2010 baseline. The intent of this requirement is to expand the water reduction requirements of Federal agencies to include other areas of water consumption beyond potable water.

The specific goal for ILA water consumption is a 2 percent volumetric reduction annually, or 20 percent by the end of FY2020, relative to the FY2010 baseline. Federal agencies are required to submit their FY2010 baseline ILA volumetric water consumption data (in millions of gallons) and to describe how much of the baseline volume was estimated and how much was for landscaping purposes.

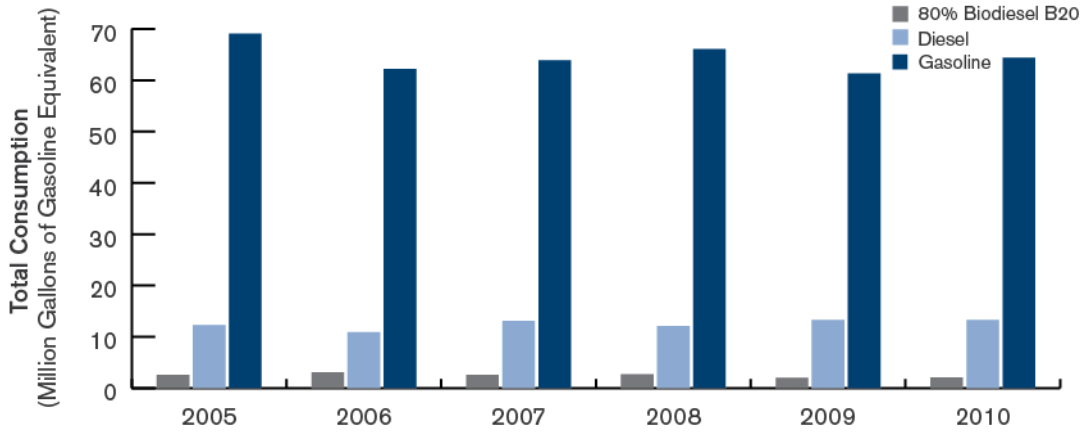
The Air Force established the new required ILA baseline. The baseline usage for the Air Force is 2.3 billion gallons, with 25 percent of the usage being estimated. In FY2010, 93 percent of the Air Force's total ILA water consumption was for landscaping.

The Army and the Department of the Navy did not report use of ILA water separately from their potable water consumption. They plan to expand water data tracking methodologies in FY2011 to capture ILA water consumption.

Non-Tactical Fleet Vehicles Petroleum Use

EISA 2007 requires Federal agencies to achieve a 20 percent reduction in non-tactical vehicle (NTV) petroleum consumption by FY2015 compared to a FY2005 baseline. E.O. 13514 extends the reduction goal to 30 percent by FY2020. In FY2010, DoD NTVs consumed the equivalent of 80.3 million gallons of Gallon of Gasoline Equivalent (GGE), which includes gasoline, diesel, and the diesel portion of biodiesel blends (80% of a B20 blend). The mix of petroleum fuel types has remained relatively stable over the past three years, (Figure 2.9).

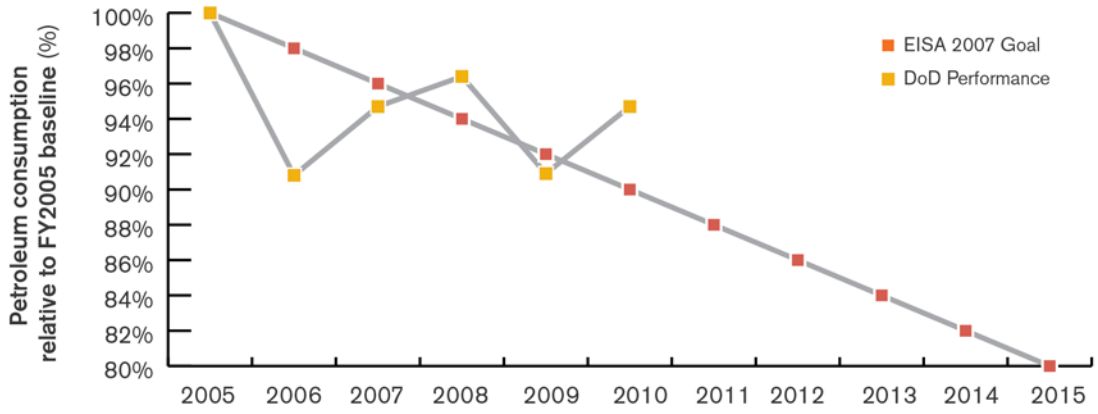
Figure 2.9 DoD NTV Petroleum Fuel Consumption Trend FY2005–2010



In FY2010 DoD reduced NTV fleet petroleum consumption by 5.3 percent relative to the FY2005 baseline; falling short of the 10 percent reduction goal. Petroleum consumption has remained below the 2005 baseline of 84.8 Million GGEs. Annual petroleum consumption has, however, fluctuated during the

past 5 years (Figure 2.10). The Department continues to pursue replacement of NTVs with more efficient models, alternative fuel vehicles, and hybrid electric vehicles to decrease petroleum demand.

Figure 2.10 DoD NTV Petroleum Consumption Trend Towards EISA Goal FY2005-2010



The Air Force continues to reduce its petroleum consumption in non-tactical vehicles. For example, in FY2010, the Air Force downsized a total of 370 large sedans/SUVs to more efficient models, and procured a total of 275 hybrid electric vehicles through the General Services Administration (GSA).

The Secretary of the Army implemented an initiative to replace 4,000 conventional GSA-leased vehicles with low speed electric vehicles. In FY2010, the Army continued to reduce its non-tactical vehicle fleet of 80,000 vehicles through actions such as eliminating Class IV vehicles (Suburbans, Yukons, and Crown Victorias).

The Department of the Navy is implementing special projects to install fueling infrastructure for alternative fuel vehicles. For example, Partnerships with the Navy Exchange (NEX), has fully supported the transition to alternative fuels. Some fleets have been using biodiesel blends in medium and heavy vehicles for several years. Newer station initiatives include adding E-85 fueling infrastructure.

3 DoD Renewable Energy Performance

This section of the AEMR describes DoD's efforts to expand its use of renewable energy. Departmental progress toward statutory goals for renewable energy is described first. Funding mechanisms for renewable energy and the use of Renewable Energy Certificates by DoD are then described. The connections between renewable energy use and sustainable design standards are then presented, followed by a review of regulatory and market factors relevant to renewable energy. This section concludes with an analysis of the potential for the expansion of renewable energy use across DoD.

Renewable energy resources make valuable contributions to the sustainment of military missions by providing a flexible, reliable, and secure energy supply. When combined with appropriate technologies and necessary energy assurance policies, the development of on-site renewable energy can help military installations provide for greater mission assurance, assist in allowing installations to carry out mission-critical activities and support restoration of the electric grid in the event of disruption. Thus, the development of mission-compatible renewable and alternative energy sources on military installations can contribute to DoD energy security.

Three sets of requirements are relevant to the use of renewable energy at DoD facilities: First, Section 203 of EPAct 2005 established a goal for all Federal agencies to increase the use of renewable energy sources using a phased-in approach, with a goal for FY2010 that 5 percent of all electricity consumption be from renewable sources.

Second, E.O. 13423 built on EPAct 2005 by requiring that half of the statutorily required renewable energy consumed by a federal agency come from new renewable sources. To the extent feasible, an agency should implement new renewable energy generation projects on agency property for agency use. New renewable sources are those placed into service after January 1, 1999.

Third, Title 10 U.S.C. §2911established a goal for DoD to produce or procure not less than 25 percent of the total quantity of facility energy DoD consumes from renewable energy sources by FY2025 and each fiscal year thereafter. The goal for FY2010 is 10 percent. See Appendix C for the House Committee on Armed Services letter regarding DoD's renewable energy goal.

The Title 10 U.S.C. §2911(e) metric measures total renewable energy (electric and non-electric) production and procurement against total facility electricity consumption, whereas the EPAct 2005 metric measures total renewable electric consumption against total facility electric consumption. Title 10 U.S.C. §2911(e) allows DoD to count all renewable energy production and procurement, whereas EPAct 2005 only accounts for renewable procurement and direct consumption from on-site projects and where renewable energy credits (RECs) are not placed on the market.

DoD Progress Toward Renewable Energy Goals

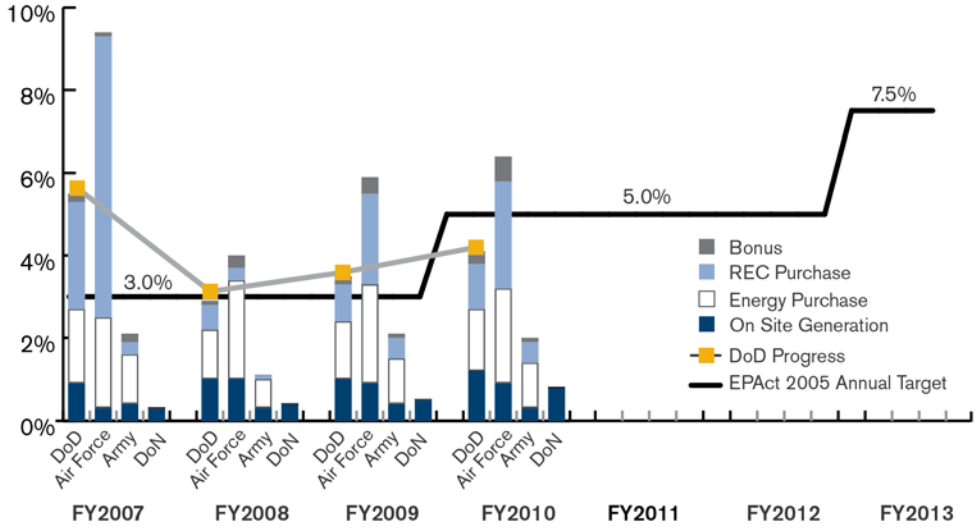
DoD is committed to complying with all Federal energy statutory requirements and continues to expand and develop its renewable energy programs. To meet mandated renewable energy targets, DoD is making necessary organization-wide energy program improvements that will increase the impact of existing and future renewable energy projects.

3.1.1 DoD Facilities Renewable Energy Progress Towards EPAct 2005 Goal

DoD continues to make progress installing renewable energy technologies and purchasing electricity generated from renewable sources (solar, wind, geothermal, and biomass). EPAct 2005 established a target of increasing renewable energy consumption to 5 percent by FY2010. Although DoD did not achieve this target, it continued to make progress towards the goal by increasing renewable energy consumption from 3.6 percent in FY2009 to 4.1 percent in FY2010. The Air Force continues to exceed the EPAct 2005 goal by consuming 6.4 percent renewable energy. However, the Army and Department of the Navy fell below the FY2010 target.

In FY2010, the use of Renewable Energy Certificates (RECs) varied among DoD components. 3.3 percent of the Air Force's progress towards the EPAct 2005 goal was attributed to RECs, followed by 1.5 percent for the Army. The Department of the Navy does not purchase RECs for the purposes of goal attainment and only purchases renewable energy when the cost is competitive with local sources of conventional power. DoD purchased 440,538 MWh (1,503 BBTU equivalent) of RECs in FY2010. The Air Force purchased approximately two-thirds of the DoD REC total. The Air Force is the largest DoD user of renewable electric energy, meeting its goals primarily through the purchase of renewable energy and RECs. Figure 3.1 shows the DoD's progress towards the EPAct 2005 goal (by Military Department and renewable energy category).[6]

Figure 3.1 DoD Renewable Energy Trend Towards EPACT 2005 Goal FY2010



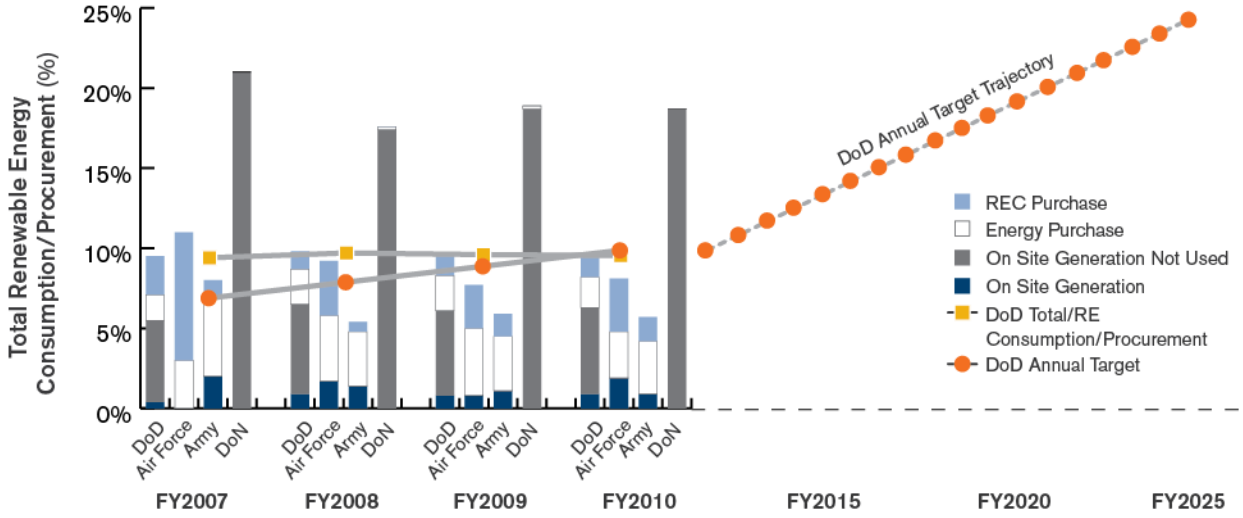
3.1.2 DoD Facilities Renewable Energy Progress Towards Title 10 U.S.C. Section 2911 (e) Goal

In FY2010, DoD produced or procured close to 10,000 BBTUs of electric and non-electric energy from renewable sources, totaling 9.6 percent with respect to total electricity consumption. Figure 3.2 illustrates the DoD trend in meeting the 2911(e) goal and the renewable energy categories used. DoD is close to the target of 10 percent, and has maintained a steady trend of renewable energy production and procurement

[6] Bonus category is a FEMP additional credit for producing renewable energy on Federal or Indian land.

since 2007. The Department of the Navy exceeded the FY2010 target at 18.5 percent, while the Air Force and Army fell below the target at 8.1 percent and 5.6 percent, respectively.

Figure 3.2 DoD Renewable Energy Trend Towards §2911(E) Goal FY2010



Renewable energy represents a critical part of DoD's energy security platform. Military installations—particularly those located in the Southwest and along the coasts—are well-situated to support large-scale solar, wind and geothermal energy projects that are carefully sited and developed in ways that are consistent with the DoD's current and projected military mission requirements. The development of such mission-compatible renewable energy on military installations can help DoD achieve two important goals: (1) reduce its costly reliance on fossil fuels and the related greenhouse gas emissions they generate; and (2) provide for greater mission assurance.

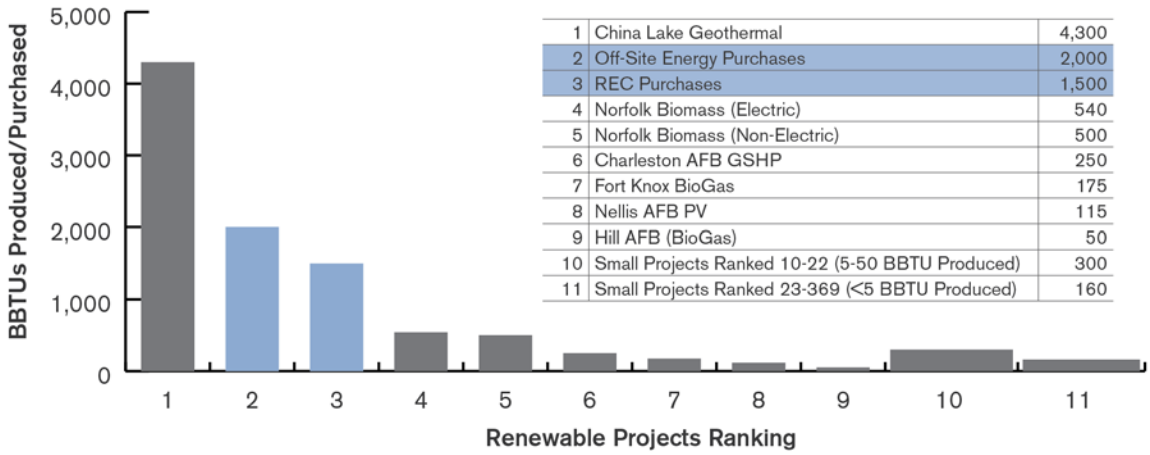
DoD estimates that an increase in total renewable energy production and procurement of at least 7,000 BBTUs from current levels (about 70 percent) will be needed to meet the 10 U.S.C. Section 2911 (e) target of 25 percent by FY2025.[7] The Military Departments are currently focusing on building large-scale generation projects on installations to significantly increase renewable energy generation capacity. Figure 3.3 ranks existing renewable energy projects from largest to smallest output, and highlights the impact that large scale, on-site, renewable generation projects have on DoD's ability to meet renewable energy production targets.

As shown in Figure 3.3, the China Lake geothermal facility produces significantly more annual renewable energy than all other DoD projects combined. Similarly, the aggregate production of all smaller-scale projects (i.e. 0-5 BTUs per year) is approximately equivalent to the output from the Fort Knox Biogas plant. Figure 3.3 illustrates that although initiating small-scale projects may promote distributed generation and grid independence, the effect on goal attainment is not significant compared to building larger-scale projects (such as China Lake). However, utility-scale generation projects typically require significant up front capital investment on the order of hundreds of millions of dollars. DoD does not have

[7] This amount assumes that DoD will meet its energy consumption reduction goal of 37.5 percent by FY 2020.

the budgetary flexibility to build, operate, and maintain projects of this size. Given its fiscal constraints, DoD is exploring third-party financing mechanisms to finance large-scale renewable energy projects.

Figure 3.3 DoD Renewable Energy Contributions To § 2911(E) Goal FY2010



1	China Lake Geothermal	4,300
2	Off-Site Energy Purchases	2,000
3	REC Purchases	1,500
4	Norfolk Biomass (Electric)	540
5	Norfolk Biomass (Non-Electric)	500
6	Charleston AFB GSHP	250
7	Fort Knox BioGas	175
8	Nellis AFB PV	115
9	Hill AFB (BioGas)	50
10	Small Projects Ranked 10-22 (5-50 BBTU Produced)	300
11	Small Projects Ranked 23-369 (<5 BBTU Produced)	160

There is a misalignment between the economics of meeting DoD-wide renewable energy goals and the accounting rules applied towards meeting the EPAct 2005 targets. Although a few utility-scale renewable projects could carry DoD beyond current mandates, the financial viability of on-site renewable energy ventures will depend on demand from consumers tied to the needs of the commercial electrical grid both on and off a DoD installation. Some installations are so large that the grid interconnection will be not be near the installations' cantonment areas. In these cases, energy that the installation does not consume does not count towards the EPAct 2005 goal. DoD considers the requirement put forth in 10 U.S.C. §2911(e) as more consistent with its renewable energy generation efforts and aligns with the original intent of the mandates, which is for the federal agencies to reduce the nation's dependence on fossil energy where economically viable.

Sufficiency of Current Funding Mechanisms

NDAA 2010 § 332 requires DoD to determine whether a dedicated funding mechanism for renewable energy projects for stand-alone facilities would encourage greater use of renewable energy sources both at existing facilities and in new construction.

DoD Components will execute energy projects that are cost effective over their life cycles, both at stand-alone facilities and those that are connected with the commercial grid. If stand-alone facilities require additional energy supply, conventional and renewable energy generation technologies should be considered. To meet mandated energy goals, the Military Departments are pursuing utility-scale renewable energy production with third-party investors. These arrangements require complex site approvals and close coordination with investors and local utilities. Further analysis is required to determine the viability of depending exclusively on third party financing mechanisms to meet §2911(e) renewable energy targets.

Appropriations will continue to play a role in many distributed generation projects. These projects may be driven more by energy security than by economic considerations. Such projects typically need either a continuous source of energy, or a combination of energy storage with intermittent renewable sources. In order to achieve small-scale generation capacity increases, DoD has not identified any requirements beyond existing funding and performance contract authorities.

DoD will benefit if Congress permits funding decisions to be guided by both financial and mission impacts rather than dictating specific technologies. DoD recommends continuing the practice of dedicating funds for energy projects, while continuing to compete energy conservation projects against renewable energy projects. With respect to assessing a facility's energy profile, energy conserved is equivalent to energy produced. In most cases, investments in energy conservation have a much larger energy impact than investments in renewable energy technologies, especially those that generate electric energy. Additional funding would create more impact if applied to energy efficiency in programs like the energy conservation investment program (ECIP), which evaluates renewable technologies and conservation projects equally.

Meeting Goals with Renewable Energy Certificates

NDAA 2010 § 332(b) requires DoD to provide an assessment of the feasibility of meeting its renewable energy goals with on-base renewable energy production rather than with renewable energy certificates (RECs).

DoD is subject to two statute-driven renewable energy targets that use different variables to calculate performance. The first is EPAct 2005 that mandates 7.5 percent of electricity consumption come from renewable sources by 2013. DoD must consume the energy to receive credit. The second is Title 10 U.S.C. § 2911(e), which mandates that renewable energy (electric and non-electric) produced or procured must total 25 percent of total electricity consumption by the year 2025. For this calculation, DoD does not have to consume the renewable energy.

RECs are useful to DoD in that they can improve economic returns for investors that may construct renewable energy projects on DoD land. This makes projects feasible that would otherwise not be attractive to investors. However, RECs are not energy, and if DoD purchases them, they are an expenditure that does not contribute to energy security posture. DoD sees minimal benefit in purchasing RECs beyond assisting with compliance with renewable energy mandates, and in general would prefer to allocate funds directly on energy or projects that produce it.

The DOE's renewable energy accounting guidance includes two parts in its definition: (1) the physical energy and (2) the renewable attribute of the energy (i.e., the REC). Developers or utilities sell both commodities in order to maintain a profitable operation. In most cases, the business case for investment only works if the investor retains and resells the RECs. If DoD is buying power from such a project, the energy is less expensive if the investor sells the RECs to another entity. Usually this lower rate is the one that must be used for on-site renewable energy projects. Unfortunately, DOE accounting rules treat projects where investors retain RECs as "brown power" that will not contribute to EPAct 2005 goals. In these cases, an installation purchases only the energy (not the RECs) from the on-site renewable energy

source owned by a third party. This energy counts toward the §2911(e) calculation but not towards EPAct 2005.

The Army, Navy, and Marine Corps are moving away from REC purchases as part of their renewable energy strategies and are focusing on obtaining third-party investments to complete on-site generation projects. Without the use of RECs, 10 U.S.C. § 2911(e) is attainable, but DoD does not expect the EPAct 2005 goal to be attainable under the accounting rules that require purchase or retention of RECs.

The Air Force is moving forward with a strategy of aggressively seeking third-party financing, while focused on meeting both the 10 U.S.C. § 2911 (e) and EPAct 2005 renewable energy goals and considers RECs vital to attaining renewable energy goals. Renewable energy goal progress to date reflects this difference in strategies as the Navy far exceeds 10 U.S.C. § 2911(e) targets, but falls well below the EPAct 2005 targets. This disparity in goal performance is best shown by the impact of the Navy's 270 MW-capacity China Lake geothermal project. The Navy does not retain RECs from China Lake and therefore can count energy production in the 10 U.S.C. § 2911(e) calculation, but not the EPAct 2005 calculation.

Sustainable Design Standards and Renewable Energy Goals

NDAA 2010 § 332 requires DoD to provide an analysis of the percentage of new construction projects subject to DoD's current building construction sustainable design standards that include a renewable energy component. The Department must also determine whether the criteria included in its design standards are consistent with overall renewable energy goals, as well as other DoD objectives.

Sustainable design principles are codified in the United Facilities Criteria enforced by U.S. Army Corps of Engineers (USACE), Air Force Civil Engineer Support Agency (AFCESA), and Naval Facilities Engineering Command (NAVFAC). The Leadership in Energy and Environmental Design (LEED) standard (2009 version 3.0) and the ASHRAE 90.1 standard provide technical guidance for Federal agencies when complying with the Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding.

Where cost effective, buildings must perform equivalent to LEED Silver, and 30 percent better than the ASHRAE 90.1 standard. Sustainability standards encourage, but do not require, the addition of on-site renewable energy-generating attributes. As shown in Figure 3.3 above, on-site renewable energy generation at the facility level does not contribute significantly to the Department's renewable energy generation. DoD plans to achieve renewable energy goals by initiating large-scale, renewable energy generation projects, which are not incorporated into current sustainability design standards. LEED and ASHRAE standards are consistent with renewable energy goals, but likely will not significantly contribute to adding generation capacity.

However, DoD can benefit from a very large rooftop area provided by an inventory of more than 300,000 buildings. These roof tops offer opportunities to install building-integrated photovoltaic systems in building renovations and new construction initiatives and can contribute to DoD's increase in on-site renewable electric generation. The results of an analysis of MILCON-funded renewable energy initiatives (including rooftop potential) across DoD are provided in Appendix F.

Market and Regulatory Impact on DoD Renewable Project Planning

NDAA 2010 § 332 requires DoD to assess the extent to which state and regional laws and regulations and market structures provide opportunities or obstacles to establish renewable energy projects on military installations.

The availability and adequacy of a renewable natural resource (such as abundant sunshine or wind) are key factors in selecting successful renewable energy projects. However, favorable local energy development policies, utility cost structures, and regulatory incentives must also be considered when planning renewable energy projects. The most important market and regulatory factors include the following:

- Local demand for energy: Without a large enough population of energy users and available grid connections, there may be very little demand for new renewable sources.
- Local/regional energy prices: Areas with higher electricity prices may experience more development of renewable energy resources because the higher market price for electricity allows higher cost technologies, such as solar, to compete in the marketplace.
- Regulatory incentives: Federal, state, and local programs may offer low cost loans, loan guarantees, grants, tax incentives, and technical assistance to reduce renewable energy facility startup and operating costs. Other market drivers for renewable energy include special agreements, such as feed-in-tariffs, that allow facilities to sell renewable energy directly to the utility without using any of the energy.

Fair net metering policies can also play an important role in spurring the development of renewable energy systems by removing market-entry barriers to distributed generation systems (including new renewable energy sources).

DoD Renewable Energy Production Baseline and Potential for Growth

NDAA 2010 § 332 also requires DoD to develop an assessment of meeting renewable energy goals with on-base renewable energy production rather than renewable energy credits. Table 3.1 shows FY2010 renewable energy production levels, by energy source type, across DoD. While DoD generated 9,950 BBTUs eligible for the 10 U.S.C. § 2911(e) calculation, approximately 5,800 BBTUs (bottom right of Table 3.1) was from on-site generation. The other 4,150 BBTUs are the sum of renewable energy and REC purchases.

If DoD is to reach the estimated 17,000 BBTUs of renewable energy to meet the 10 U.S.C. § 2911(e) goal with on-site production alone (keeping RECs and off-site purchases steady) on-site renewable production must increase by about 7,000 BBTUs. This is equivalent to approximately 1,200 MW of solar, which would cover 9,400 acres (or 67 Nellis AFB solar fields). Alternatively, 7,000 BBTUs could be met with 260 MW of new geothermal generation (equivalent to two China Lake projects).

Table 3.1 DoD Renewable Energy Production FY2010

Sum of Total Output (Electric + Non-Electric) BBTU								
Renewable Energy Type	Air Force	Army	DLA	Marine Corps	Navy	NSA	TMA	DoD Total
Biogas (captured methane)	-	175	-	-	-	-	-	175
Daylighting	7	2	-	1	-	-	-	10
Geothermal	1	-	-	-	4,292	-	-	4,293
Ground Source Heat Pumps	332	5	-	4	18	-	-	358
Hydropower	-	60	-	-	-	-	-	60
Landfill Gas	52	-	-	-	-	-	-	52
Solar Photovoltaic	20	14	0.01	22	25	0.05	-	80
Solar Thermal (including water and space conditioning)	6	11	-	1	34	-	-	52
Wind	57	6	-	16	50	-	-	129
Wood and wood residuals	-	11	-	-	-	-	-	11
Municipal Solid Waste	-	-	-	-	538	-	47	586
Total	474	284	0.01	44	4,957	0.05	47	5,806

DoD conducted a preliminary assessment of renewable energy potential at its installations using FY2009 data.[8] The purpose of the assessment was to determine the likelihood that DoD can meet its renewable energy goals. The assessment considered the following factors:

- The quality and availability of the renewable resource (solar, wind, etc.);
- The strength of the renewable energy market, including state electricity prices, demand for renewable power driven by renewable portfolio standards (RPSs), and other financial or regulatory incentives;
- Proximity to and adequacy of high-voltage transmission lines and power demand centers;
- Access to capital, particularly third-party financing for large-scale, utility-size renewable energy development; and
- Land availability and suitability.

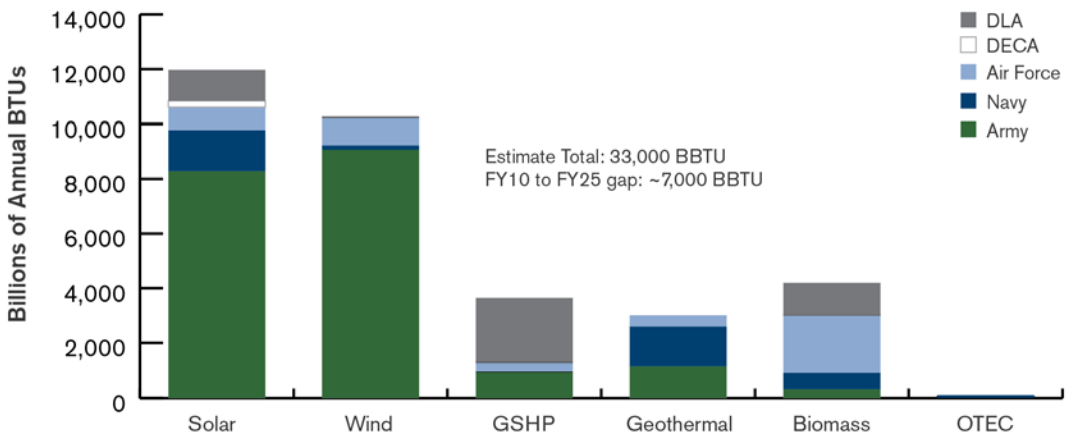
Figure 3.4 shows that preliminary estimates of additional renewable energy potential are well above the capacity increase required to meet the 10 U.S.C § 2911(e) goal. Responses from the Military Departments varied in methodology and metrics. For example, the installations in the Southwestern region of the U.S reported significant potential for solar development, but were not able to predict the effect that mission requirements and local market conditions would have on a project's output potential. Projects with this level of uncertainty were appropriately listed as "to be determined" and therefore were not included in Figure 3.4. Adding certainty to how DoD reaches the 10 U.S.C § 2911(e) goal requires in-depth feasibility studies on a project-by-project basis at the installation level, which was beyond the

[8] FY2010 data were not available at the time of the assessment.

scope of the DoD-wide survey. Appendix H contains a summary by installation of current renewable capability and the potential to increase renewable energy contributions.

As illustrated in Figure 3.4, the Military Departments, along with DLA and DeCA identified over 33,000 BBTUs of renewable energy project potential (compared to the estimated 7,000 BBTU increase required to meet the 10 U.S.C § 2911(e) goal). The responses also indicated that the availability of the renewable resource is not the limiting factor when pursuing renewable energy development. Impacts on mission execution, land ownership complexities, and permitting are among the obstacles that typically limit development of renewable energy.

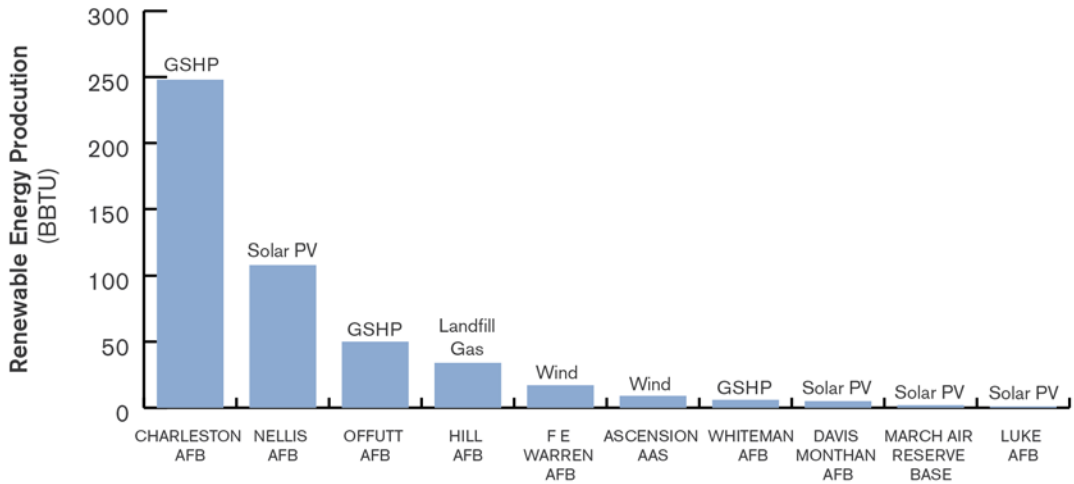
Figure 3.4 DoD Estimate Of Renewable Energy Production Potential



In response to the potential renewable energy survey, the Air Force reported its baseline production at 108 domestic installations for FY2009. In FY2009, all Air Force installations produced a total of 490 BBTUs of renewable energy. Approximately one third was electricity production equivalent to 178 BBTUs, while two thirds was the non-electric equivalent of 312 BBTUs, the majority of which was from ground source heat pumps (GSHPs).

The solar photovoltaic array at Nellis AFB in Nevada was the largest contributor of renewable electric energy in the Air Force with 105 BBTUs of electricity produced, equivalent to 24 percent of energy consumption on the installation. Figure 3.5 shows the Air Force's top ten renewable energy-producing installations.

Figure 3.5 Air Force Top Ten Renewable Energy Installations FY2009



The Air Force identified a potential of 4,600 BBTUs of renewable energy that could be developed, the majority of which could come from Biomass projects. Table 3.2 illustrates this breakdown by technology type.

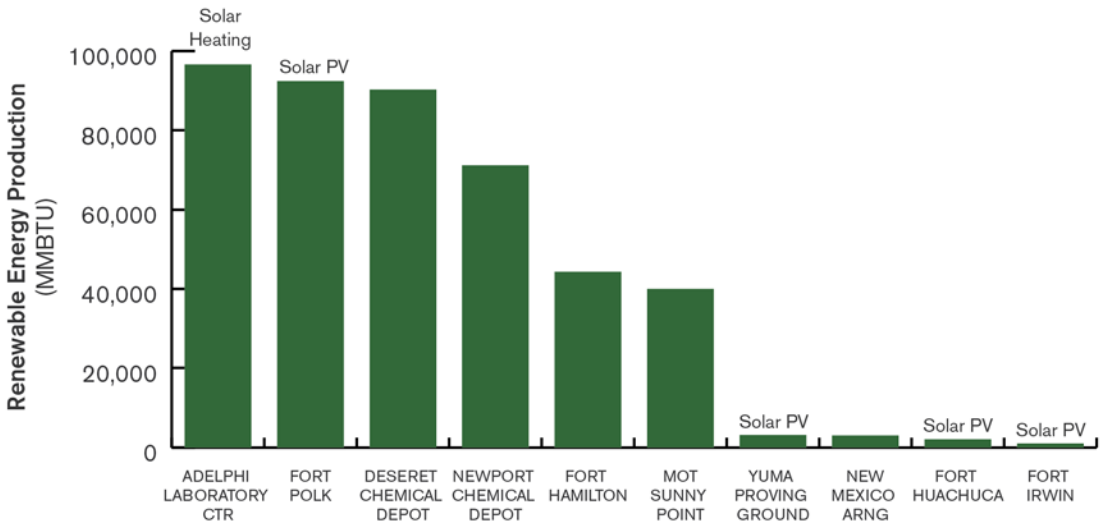
Table 3.2 Air Force Potential Renewable Projects By Technology

Potential Renewable Annual Energy Production (BBTUs)		
Solar	830	18%
Wind	1,000	22%
Biomass	2,100	45%
Geothermal	400	9%
Ground Source Heat Pump	320	7%
Total	**4,600**	**100%**

In response to the potential renewable energy survey, the Army reported its installations produced approximately 500 BBTU of renewable energy in FY2009, 82 percent of which was thermal and 18 percent electric. The total renewable energy consumption was largely concentrated in a small number of installations, with six installations producing between 40 to 97 BBTU.

In FY2009, 21 Army installations produced 446 BBTU of renewable energy. Adelphi Laboratory in Maryland, Fort Polk in Louisiana, and the Deseret Chemical Depot in Utah were the largest producers of renewable energy. Figure 3.6 shows the Army's top ten renewable energy-producing installations.

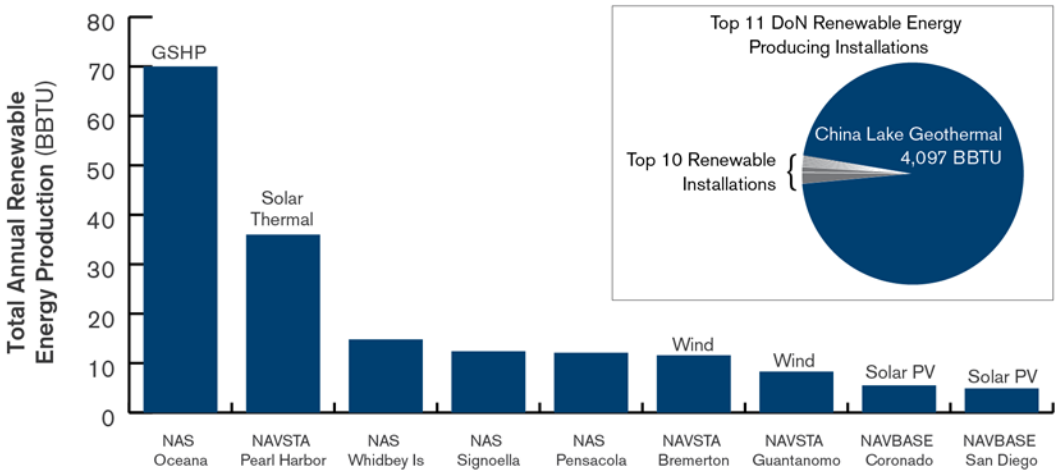
Figure 3.6 Army Top Ten Renewable Energy Installations FY2009



The Army has conducted assessments of approximately one quarter of its installations for renewable energy potential. To date, the Army identified 13 candidate installations, located mostly in the southwest, which could generate as much as 1,400 MW of renewable energy from large scale projects. On a yearly basis, if fully developed, this capacity could produce an estimated 21,000 BBTU, far exceeding the Army and DoD requirements for FY2025. Most of the potential capacity identified by the Army comes from solar energy opportunities located in California, New Mexico, Arizona, and Nevada. These states are rich in solar resources and have excellent regulatory incentives. The Army also determined that wind and geothermal have significant potential as well and could each contribute up to 15 percent of the total estimated potential.

In response to the potential renewable energy survey, the Navy reported that 37 of its 145 installations produced 4,300 BBTUs of renewable energy amounting to 9.6 percent of total energy consumption. The top renewable energy producing installation is China Lake, followed by Naval Air Station Oceana in Virginia, and Naval Station Pearl Harbor in Hawaii. Figure 3.7 shows the Navy's top ten renewable energy-producing installations. Excluding China Lake, on-site generation is considerably smaller when compared to the Air Force and Army.

Figure 3.7 Navy Top Renewable Energy Installations FY2009



The Navy identified approximately 3,800 annual BBTUs of development potential composed primarily of geothermal, solar, and biomass technologies (Table 3.3). Executing these projects in the future will help the Navy to meet its energy goals. Production from the China Lake geothermal project will keep the Navy compliant with the 10 U.S.C § 2911(e) goal under current accounting rules until roughly 2018.

Table 3.3 Navy Potential Renewable Energy Projects

Potential Renewable Annual Energy Production (BBTUs)	
Solar	1,194
Wind	179
Biomass	801
Geothermal	1,614
Ground Source Heat Pump	46
Ocean Thermal Energy Conversion	12
Total	**3,846**

4 DoD Progress Towards Net Zero Energy Installations

This section of the AEMR describes the activities of the DoD Net Zero Energy Installation (NZEI) Task Force, which is comprised of representatives from the Office of the Under Secretary of Defense (Installations and Environment), the Military Departments, and DOE's National Renewable Energy Laboratory (NREL). Its purpose is to create replicable templates for installations to assess the potential for energy conservation, renewable energy production, and improved energy security. A net zero installation is one that produces as much energy on-site or nearby as it consumes in its buildings and facilities, and maximizes the use of renewable energy resources.

Net zero energy is a concept of energy self-sufficiency, based on minimized demand and use of local renewable energy resources. Even if net zero energy status is not fully achieved at a particular installation, it serves as a design ideal for a disciplined exploration of how energy is provided and used.

Net zero assessments require in-depth baseline analyses of an installation's energy use, the potential for energy consumption reduction through behavior change and efficiency investments, the potential for on-site renewable energy production, and local grid modifications required to control energy supply from more diverse and often intermittent sources.

Current DoD Net-Zero Pilot Installations

The Net Zero Energy Installation Task Force is performing detailed analyses of four pilot installations to develop an analytical template applicable to all DoD installations. NREL completed an initial version of this template in 2010 (http://www.nrel.gov/docs/fy10osti/48876.pdf. The pilot installations are:

- Air Force: United Stated Air Force Academy
- Army: Kahuku Training Area
- USMC: Marine Corps Air Station Miramar
- Navy: Naval Support Activity South Potomac

The MCAS Miramar study is complete and available at http://www.nrel.gov/docs/fy11osti/47991.pdf.

Net Zero Feasibility

NDAA 2010 §332 requires DoD to report on the feasibility and cost of developing net zero installations and provide a detailed assessment, by installation, of on-site power production (to include renewable energy generation) measured against energy consumption. In addition to the four pilot installations, DoD has identified several other NZEI candidate installations as shown in Table 4.1. A more comprehensive and in-depth net zero feasibility study for each installation will be required to develop cost estimates.

These installations are the result of preliminary screenings that varied in methodology by Military Department. For the Navy and Air Force, installations with the highest ratio of renewable energy to on-base consumption were selected. The Army conducted renewable energy assessments on roughly 25% of its installations and then examined ongoing energy conservation efforts at each of the assessed installations. Installations with the most potential for increasing on-site renewable generation and reducing overall consumption were selected. The Marines identified installations with the highest

percentage of conventional and renewable on-site production when compared to total consumption. Each Military Department will refine its NZEI focus based on results from ongoing and planned studies.

Table 4.1 DoD Net Zero Candidate Installations

Air Force	Army	Navy	Marines
Charlston AFB	Fort Irwin, CA	NARWC China Lake CA	MCLB Barstow
Nellis AFB	Hawthorne Army Depot, NV	NAVFAC, HI	MCRD San Diego
Offutt AFB	Fort Bliss, TX	NAS Oceana VA	MCAS Miramar
Hill AFB	Fort Lewis, WA	NAVSTA Bremerton	MCAS Yuma
F E Warren AFB	Fort Huachuca, AZ	Barking Sands HI	MCAGCC Twentynine Palms
Ascension AAS	Sierra Army Depot, CA	NAS Sigonella IT	MCB Camp Pendleton
Whiteman AFB	Yuma Proving Ground, AZ	Souda Bay, GR	MCB Hawaii
Davis Monthan AFB	Fort Carson, CO	NAS Whidby Island WA	MCLB Albany
MARCH Air Reserve Base	Rock Island Arsenal, IL	Pearl Harbor HI	MCAS Beaufort
Luke AFB	Fort Bragg, NC	El Centro CA	MCLB Blount Island

As part of DoD's initiatives to comply with the 2010 NDAA §332 requirement, the Office of the Under Secretary of Defense (Installations and Environment) conducted an analysis of installations' on-site power production compared to their consumption to identify how many installations are producing significant amounts of energy that is consumed on-site. Using FY2009 data,[9] the analysis indicated that only 113 DoD installations (about 20 percent) had on-site energy production levels of 50 percent or more of their energy consumption. Of these, only five installations had significant renewable contribution to their on-site production (from 17 percent to 86 percent). This analysis indicates that DoD has minimal renewable production when compared to consumption on installations across DoD and that there is a large gap in the convergence of net zero and renewable energy goals. Appendix H contains the list of the installations, their renewable production, and total production on-site as a percentage of installation consumption.

Net Zero Energy Installation Efforts by Military Department

The Air Force is using the Air Force Academy as a testing and education ground for implementation of technologies integral in achieving net zero energy. The Air Force aims to increase on-site renewable energy generation using solar, hydro, biomass, and wind resources. The Academy is currently partnering with NREL to complete three initiatives related to smart grid capabilities, energy storage, and overall net zero energy status. NREL completed a Renewable Energy Optimization Analysis for the Academy and identified the optimal renewable energy mix for the installation based on resource availability and cost factors. As noted in Section 4.1, the Academy is an NZEI Task Force Pilot Installation.

The Air Force is also conducting an assessment of Wright-Patterson AFB to determine the feasibility of net zero using aggressive energy efficiency improvements, new on-site renewable energy generation, heat

[9] FY2010 data were not available at the time of the analysis

generation, and implementation of smart grid technologies. Similar feasibility studies are planned for Cape Canaveral AFS and Patrick AFB which could become net zero energy installations with biomass-fired and municipal waste-to-energy plants.

The Assistant Secretary of the Army (Installations, Energy and the Environment) has set a goal of total net zero energy consumption by 2030. The Army has changed the way it designs and develops Army facilities, with new construction incorporating principles from ASHRAE standard 189.1 to include cool roofs, solar water heating, storm-water management, and water efficiency improvements. This policy will help the Army find significant energy savings and contribute to the 2030 net zero goal.

The Army has also conducted assessments of approximately one quarter of its installations for renewable energy growth (a major component of net zero initiatives) and identified those installations with highest renewable energy potential. As noted in Section 4.1, the Army Kahuku Training Area, Hawaii was selected as an NZEI Task Force Pilot Installation.

The Department of the Navy has set aggressive energy conservation goals along with a goal to have 50 percent of its installations net zero by 2020. DOE and the Navy worked together to complete a net zero energy feasibility study of the Pacific Missile Range Facility (PMRF) in Kauai, HI. Results showed that under current load conditions, PMRF could achieve net zero, but would likely lose net zero status with increased mission requirements. As noted in Section 4.1, the Naval Support Activity South Potomac was selected as an NZEI Task Force Pilot Installation. From this study the Navy will develop an evaluation framework that can be applied to all of its installations. MCAS Miramar is the Marines' primary net zero effort and is an NZEI Task Force Pilot Installation.

On-Site Energy Production During Grid Outages

NDAA 2010 § 332 requires DoD to provide a determination of the cost and feasibility of a policy that would require new power generation projects established on installations to be able to switch electrical sources to provide dedicated power for military operations in the event of a commercial grid outage.

DoD can benefit from the flexibility to decide whether new power generation projects must be able to operate independently from the grid based primarily on protecting critical DoD missions. The Military Departments plan to fund future utility-scale renewable energy projects using agreements with outside investors to finance the construction and sell the renewable energy to the installations or the grid. Currently, this method is the preferred execution strategy given the high costs of renewable energy projects. A requirement to include grid-independent power capability will increase costs driven by providing new infrastructure such as transmission lines to areas of the installation that the utility would not normally pursue due to economic and technical constraints.

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5 Facilities Energy Program Management

This section of the AEMR briefly describes the organizational structure responsible for facilities energy management at the Department of Defense.

Office of Secretary of Defense Facilities Energy Organization

The Deputy Under Secretary of Defense for Installations and Environment [DUSD (I&E)] is DoD's Senior Energy Official, who is responsible for achieving all facilities energy goals and mandates resulting from legislative acts and executive orders. The DUSD (I&E) reports to the Undersecretary of Defense (Acquisition, Technology and Logistics). The Director, Facilities Energy reports to the DUSD (I&E), and is responsible for coordination of the DoD facility energy strategy and related programs. The Director also coordinates all facilities energy reports to outside federal agencies and Congress. Figure 5.1 shows the high-level organizational structure of OSD Facilities Energy.

Figure 5.1 Office of Secretary of Defense Facilities Energy Organization

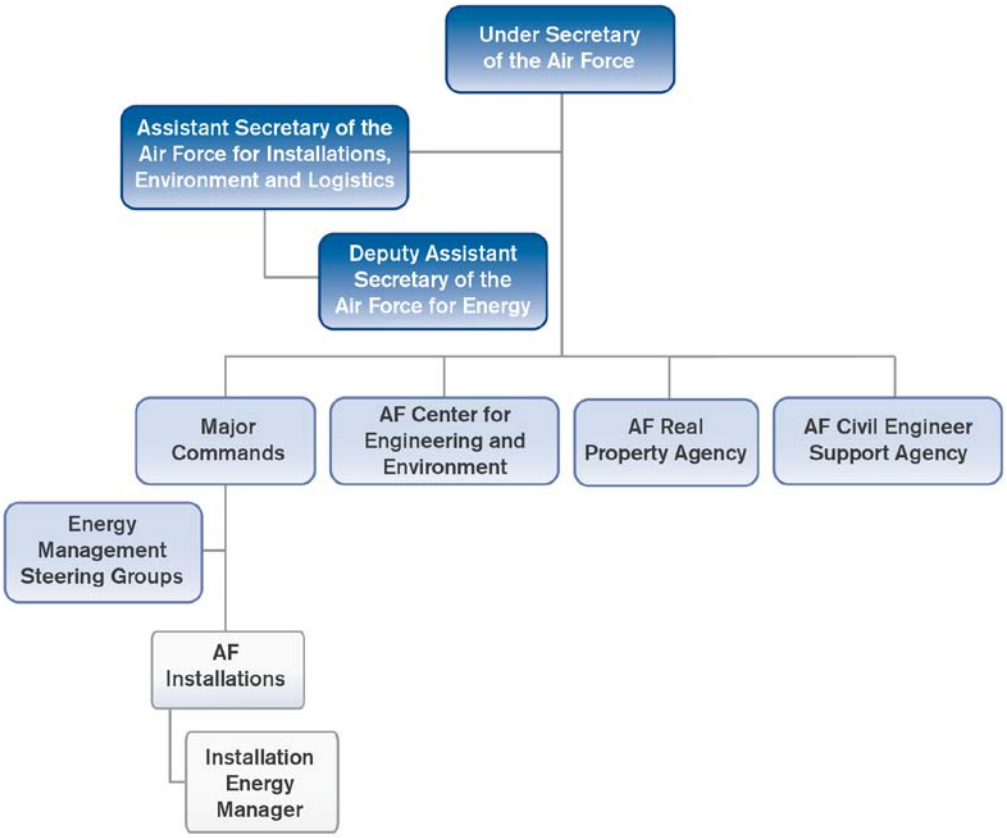
Air Force Facilities Energy Organization

The Under Secretary of the Air Force (SAF/US) serves as the Air Force's Senior Energy Official. The Assistant Secretary of the Air Force for Installations, Environment, and Logistics (SAF/IE) performs as Agency Senior Energy Official on behalf of the SAF/US when required. The Senior Energy Official co-chairs the Headquarters Air Force (HQ USAF) Energy Senior Focus Group (SFG) with the Vice Chief of Staff of the Air Force (VCSAF), and acts as the coordinating body for cross-functional issues, working through the offices having primary responsibility for policy and execution.

The Air Force's energy program governance also includes Energy Management Steering Groups (EMSGs) at the base, MAJCOM, and Air Force levels that link decision-making and advocacy to optimize resources and program performance. The Air Force Facilities Energy Organization is shown in Figure 5.2.

Figure 5.2 Air Force Facilities Energy Organization

Army



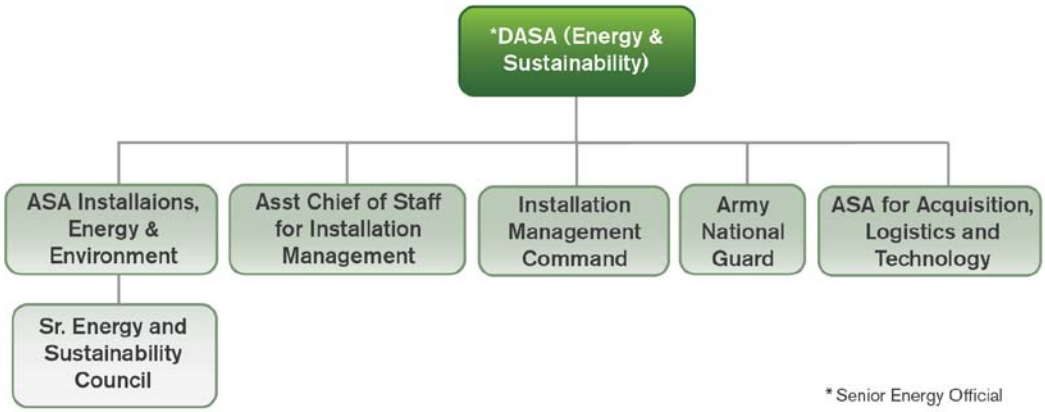
Facilities Energy Organization

The Deputy Assistant Secretary of the Army for Energy and Sustainability [DASA (E&S)] is the Senior Energy Official for the Army. The Army Facilities Energy Organization (Figure 5.3) is comprised of:

- The Office of the Assistant Secretary of the Army for Installations, Energy and Environment,
- The Office of the Assistant Chief of Staff for Installation Management,
- Army National Guard and U.S. Army Reserves,
- Army Materiel Command, and
- The Office of the Assistant Secretary of the Army for Acquisition, Logistics and Technology.

The Army Senior Energy Council (SEC) is an intra-Army departmental committee composed of Army senior leadership. The SEC is responsible for establishing the enterprise-level energy security goals, objectives, performance metrics, and priorities for energy security initiatives and programs throughout the Army.

Figure 5.3 Army Facilities Energy Organization



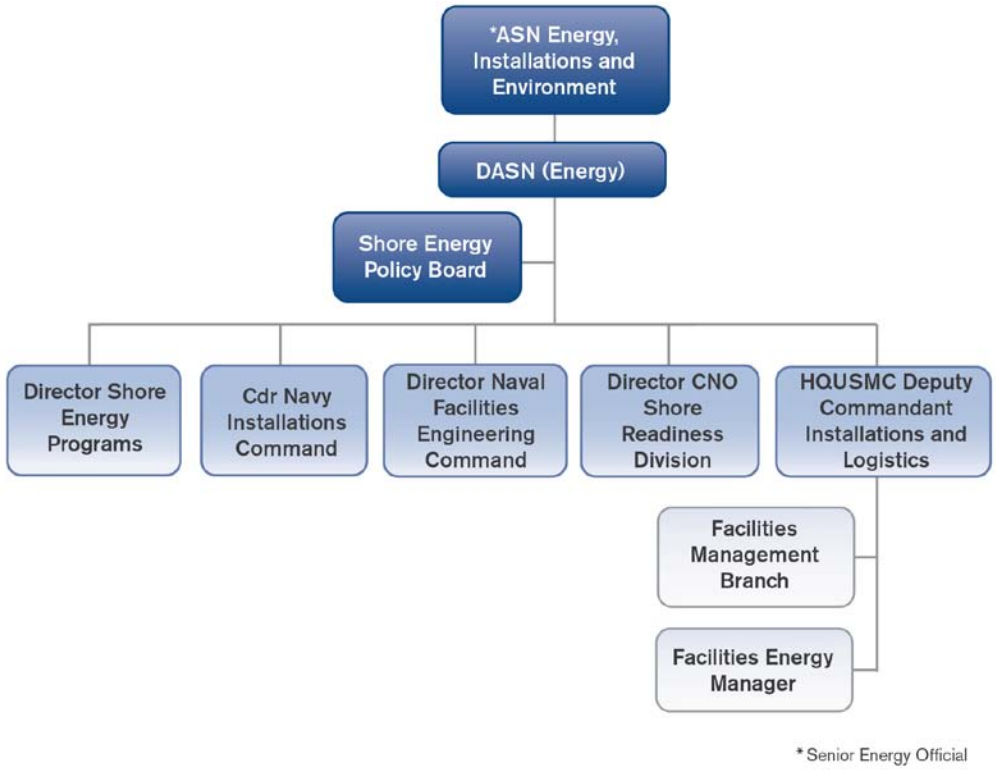
Department of the Navy Facilities Energy Organization

The Department of the Navy Senior Energy Official is the Assistant Secretary of the Navy for Energy, Installations and Environment (ASN (EI&E)). The Department of the Navy Facilities Energy Organization (Figure 5.4) includes the Deputy Assistant Secretary of the Navy for Energy, who reports to the ASN (EI&E) and is the Chairman of the DoN Shore Energy Policy Board. The organization also includes the Director for Shore Energy Programs and the Director of the Chief of Naval Operations (CNO) Shore Readiness Division.

The Assistant Deputy Commandant, Installations and Logistics (Facilities), oversees development, management, and execution of the Marine Corps Facilities Energy and Water Management Program, which is supported by the Facilities Management Branch and the Marine Corps Facilities Energy Manager.

The Director of the Naval Facilities Engineering Command (NAVFAC) Energy Office is responsible for developing guidance for and coordinating across NAVFAC commands to plan, develop, execute, and provide oversight of energy programs and processes in support of Navy and Marine Corps installations.

Figure 5.4 Department Of The Navy Facilities Energy Organization



DoD

Component Agencies Senior Energy Officials

DoD Component Agencies have a designated Senior Energy Official to administer their Facilities Energy programs. Table 5.1 lists the designated Senior Energy Official for each DoD Component Agency.

Table 5.1 DoD Component Agencies Senior Energy Officials

DoD Component Agency	Senior Energy Official
Defense Contract Management Agency (DCMA)	Energy Program Manager
Defense Commissary Agency (DeCA)	Energy Environmental Engineer
Defense Finance and Accounting Service (DFAS)	Director Support Services
Defense Intelligence Agency (DIA)	Chief, Engineering and Logistics Office
Defense Logistics Agency (DLA)	Installations Support Director
Missile Defense Agency (MDA)	Senior Energy Manager
National Geospatial-Intelligence Agency (NGA)	Director, Installation Operations Office
National Security Agency (NSA)	Technical Director for Installations and Logistics
TRICARE Management Agency (TMA)	Energy Program Manager
Washington Headquarters Services (WHS)	Pentagon Energy Manager

6 Energy Projects Funding

This section of the AEMR responds to FY2010 NDAA § 332, which amended 10 U.S.C. § 2925 and required DoD to report energy project funding details, to include projects funded through appropriations and those projects using third-party financing mechanisms such as Energy Performance Savings Contracts (ESPCs) and Utilities Energy Savings Contracts (UESCs). This section also addresses the requirement to identify retrofit and capital improvement projects and Military Construction Program (MILCON) energy initiatives.

Optimizing energy project funding is a key component of DoD's overall energy management strategy. Large utility-scale renewable energy projects have the potential to significantly improve energy intensity, increase energy security (reliability) and meet renewable energy goals. However, large projects can be cost-prohibitive if DoD must rely on MILCON or Energy Conservation and Investment Program (ECIP) appropriations. Funding mechanisms using third party financing such as Power Purchase Agreements (PPAs) or Enhanced Use Leases (EULs) with utilities and private developers can provide the level of funding needed for these projects. See Appendix D for the OMB A-11 circular detailing the funding requests for energy and transportation efficiency management by funding account.

Energy Projects Funded by Appropriations

In FY2010, a total of 714 DoD-wide projects were funded through congressional appropriations such as MILCON, the ECIP program, or Operations and Maintenance (O&M).[10] Over $575 million appropriated in FY2010 was used to fund energy efficiency, renewable energy or water conservation projects (Table 6.1). The majority of these projects were aimed at maintaining or upgrading current facilities' energy systems to improve their efficiency, optimize energy consumption and integrate a renewable component into their operations. These projects included replacing lighting, installing management and control systems, repairing water distribution systems and installing solar hot water or solar photovoltaic systems.

[10] SRM: Sustainment Restoration and Modernization. RDT&E: Research Development Test and Evaluation

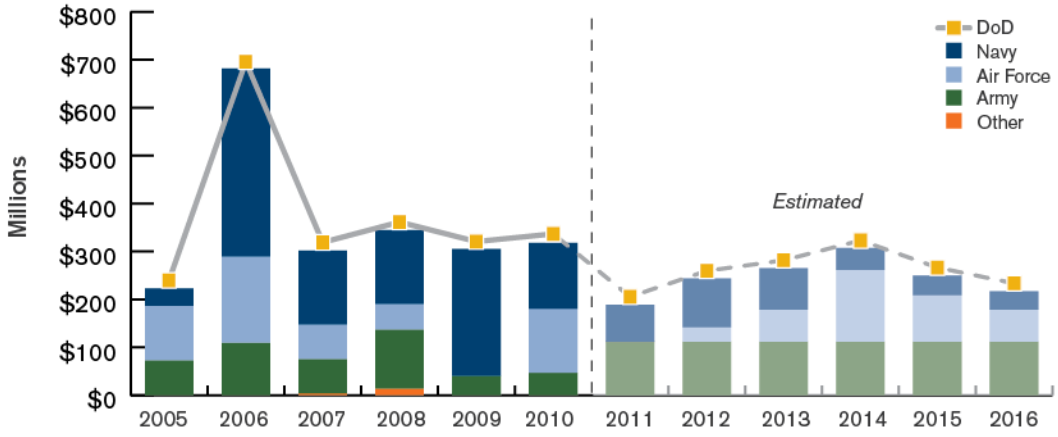
Table 6.1 DoD Energy Projects FY2010

Service and Funding Mechanism	Project Total Cost ($ '000)	Number of Projects
MILCON Const	12,462	4
Renewable Energy	6,212	2
Water Conservation	3,000	1
Energy Conservation	3,250	1
MILCON ECIP	163,709	78
Renewable Energy	74,231	
Water Conservation	10,541	6
Energy Conservation	48,937	39
ESTCP	30,000	1
O&M / SRM	359,805	631
Renewable Energy	16,959	64
Water Conservation	9,144	15
Energy Conservation	333,702	552
Other	24,345	25
Renewable Energy	2,655	1
Energy Conservation	21,689	24
RDT&E	10,356	3
Energy Conservation	10,356	3
Working Capital Fund	4,394	11
Energy Conservation	4,394	11
Grand Total	575,072	752

Use of Third-Party Financing

In an effort to incorporate energy efficiency improvements and increase renewable energy generation capacity on installations, DoD leverages third-party financing mechanisms to enable cost-effective integration of energy management and renewable energy infrastructure. As illustrated in Figure 6.1, DoD's use of third-party financing was higher in FY2010 than it was FY2005, although some of the intervening years had higher levels of third-party financing than FY2010. In FY2010, DoD awarded over $323 million in third-party financing via UESCs and ESPCs. Based on the Program Objective Memorandum (POM) projections, all the Military Departments plan on continuing the use of ESPCs and UESCs, which will enable DoD to implement energy/water efficiency and renewable energy projects without incurring up-front capital costs.

Figure 6.1 DoD Total Third-Party Financing Use FY2005-2016



Tables 6.2 and 6.3 list all of the energy projects financed through ESPC and UESC third-party financing mechanisms and include an estimate of the financial obligation incurred through the duration of each mechanism, the project duration, and the estimated payback period (the number of years required for the energy cost savings to equal the project cost).

There were 36 projects in total, 22 of which were financed through ESPCs and the remaining 14 projects were financed through UESCs. The Department of the Navy had the most projects (18), followed by the Army (11), TMA (4), the Air Force (2), and DIA (1). The total project costs for DoD was approximately $323 million ($277 million for ESPCs and $46 million for UESCs). DoD expects to realize approximately 1,532 BBTUs in annual energy savings from these projects (1,180 BBTUs from ESPCs and 352 BBTUs from UESCs).

Table 6.2 DoD ESPC Projects FY2010

Service and Project Title	Project Cost ('$000)	Duration (years)	Payback (years)
Air Force	134,736		
Lighting	65	-	12
McGuire Decentralize Central Heat Plant	134,671	18	-
Army	47,669		
160th SOAR	3,300	-	9
APG ESPC Project 5	11,400	-	8
Compressed air decentralization & HVAC	3,310		9
Controls Upgrade at B9214	400	-	8
Convert HVAC System at Training Barracks 6100 Block	2,500	-	5
ESPC	9,700	-	8
Lighting	2,495	-	6
Park Solar Lighting	30	-	4
Solar Thermal	476	-	40
Steam Decentralization – Meter Group A	9,800	-	10
UMCS	4,258	-	10
DIA	221		
Solar film, Water preheat, lighting controls	221	-	7
DoN	137,151		
Chiller and Boiler Plant upgrades	23,504	18	10
Chiller Plant Improvements	4,972	14	11
Condensate Return System Repairs and Compressed Air System Improvements	3,907	14	10
Corry Station 5 Buildings	1,339	10	12
FEI - NSA Naples and NAS Sigonella ESPC	8,024	13	14
FEI - Phase 1	2,959	12	18
FEI - Phase 13	4,848	10	18
FEI - Phase 2	3,607	15	7
FEI - Phase 2 Multiple Buildings	4,192	11	18
FIE - BPA Phase IV	8,436	8	15
GSHP	17,127	18	11
HVAC, Water, Boiler decentralization and 5 kW PV	9,567	13	14
Landfill Gas	20,461	22	15
Lighting and Compressed Air	7,372	15	10
Lighting and HVAC	8,030	15	13
Lighting, HVAC and Controls	4,787	15	15
Trident Training Facility FEI	4,019	7	22
TMA	2,481		
WRAMC Bldg 48 Chillers	719	20	20
WRAMC Bldg 54 - Piping/Chiller	318	21	21
WRAMC Lighting, Traps, Ceiling, Commissioning	1,250	18	18
WRAMC Lighting, Water Meters	194	19	19
DoD ESPC FY2010 Total Cost	$322,258		

Table 6.3 DoD UESC Projects FY2010

Service and Project Title	Project Cost ('$000)	Duration (years)	Payback (years)
Air Force	**65**		
Lighting	65	-	12
Army	**16,030**		
160th SOAR	3,300	-	9
Controls Upgrade at B9214	400	-	8
Convert HVAC System at Training Barracks 6100 Block	2,500	-	5
Park Solar Lighting	30	-	4
Steam Decentralization – Meter Group A	9,800	-	10
DIA	**221**		
Solar film, Water preheat, lighting controls	221	-	7
DoN	**29,400**		
Corry Station 5 Buildings	1,339	10	12
FEI - Phase 1	2,959	12	18
FEI - Phase 13	4,848	10	18
FEI - Phase 2	3,607	15	7
FEI - Phase 2 Multiple Buildings	4,192	11	18
FIE - BPA Phase IV	8,436	8	15
Trident Training Facility FEI	4,019	7	22
DoD UESC FY10 Total Project Cost	**45,716**		

Retrofit and Capital Improvement Projects

DoD made several large capital energy investments (greater than 25 percent of plant replacement value) in existing buildings that required replacement of equipment (such as heating and cooling systems) and employed energy efficient designs, systems, equipment, and controls. The Army and Air Force implemented 26 total large capital investments projects in energy security, efficiency, and sustainability. See Appendix E for a full list of these projects.

Military Construction Program (MILCON) Energy Initiatives

DoD is leveraging MILCON investments to make its infrastructure more sustainable, which includes consideration of new approaches to roofing and renewable technology in the overall design process, reflected in the DoD Unified Facilities Criteria (UFC). In particular, UFC 4-030-01, "Sustainable Development" and UFC 3-400-01, "Energy Conservation" requires the incorporation of energy efficient technologies where cost effective.

Examples of such technologies include insulation, cool roofs, natural lighting and integrated renewable energy such as solar hot water heating. Where economically feasible, the Services are incorporating renewable energy systems into MILCON-funded projects.

In addition, as an integrated part of the MILCON program, DoD is incorporating energy-conserving roof design elements. Specific energy enhancements depend on various site factors, including building type, site orientation, and geographic region. Energy-oriented roof attributes are broken down into three broad categories: (1) green roofs, which are partially or completely covered with vegetation planted over a

waterproofing membrane; (2) cool roofs, which strongly reflect sunlight and efficiently emit thermal radiation; and (3) solar roofs, which incorporate renewable energy generation capacity through solar photovoltaic panels. In FY2010, 78 MILCON projects with energy-conserving roof designs were implemented (64 cool, 11 solar, and 3 green).

The Air Force MILCON program includes on-site renewable energy generation projects and the incorporation of energy conservation roof designs. The Air Force has committed management efforts to increasing renewable energy projects by establishing the Renewable Energy Project Development (RPED) subpanel whose mission is to provide leadership for and coordination of renewable energy projects. In FY2010, the Air Force incorporated renewable energy initiatives into 61 MILCON projects, costing a total of $640 million. The Air Force plans to spend an additional $486 million between FY2011 and FY2014 on renewable energy initiatives.

In FY2010, the Army incorporated renewable energy initiatives into 57 MILCON projects, totaling $1 billion. The Army plans to spend an additional $664 million on 20 projects from FY2011 to FY2017.

The Department of the Navy continues to incorporate energy enhancements into its MILCON program including smart building systems (electronic ballast, automatic day lighting control, and energy efficient lighting); sustainable design (green roof, air barrier, radiant barrier, high efficiency chiller, and solar power exterior lighting) and renewable energy systems such as wind turbines, solar PV, GSHP and solar domestic hot water. The Marine Corps policy established in FY2010 requires new building construction, as well as major building renovation projects involving complete roof replacements, to incorporate roof-top solar thermal and photovoltaic technologies.

See Appendix F for a complete list of the MILCON projects by Military Department that have incorporated renewable energy initiatives.

7 Federal Building Energy Efficiency Standards

This section of the AEMR responds to the requirement of 10 U.S.C. §2925 that DoD submit a description and estimate of the progress made by the Military Departments to meet the certification requirements for sustainable green-building standards in Section 433 of EISA 2007. Building construction and major renovations are also required by E.O. 13514 to reflect principles of sustainable building design and maintenance. Taken together, §2925 and the E.O. require agencies to:

- Ensure all new Federal buildings, entering the design phase in 2020 or later, are designed to achieve zero net energy by 2030,
- Ensure all new construction, major renovations, or repair or alteration of Federal buildings complies with the Guiding Principles of Federal Leadership in High Performance and Sustainable Buildings (as described below),
- Ensure at least 15 percent of existing agency buildings and leases (above 5,000 gross square feet) meet the Guiding Principles by fiscal year 2015 and that the agency makes annual progress towards 100 percent compliance across its building inventory,
- Pursue cost-effective, innovative strategies (e.g., highly-reflective and vegetated roofs) to minimize consumption of energy, water, and materials,
- Manage existing building systems to reduce the consumption of energy, water, and materials, and identify alternatives to renovation that reduce existing asset deferred maintenance costs, and
- When adding assets to agency building inventories, identify opportunities to consolidate and eliminate existing assets, optimize the performance of portfolio property, reduce associated environmental impacts, and ensure that rehabilitation of Federally-owned historic buildings utilizes best practices and technologies in retrofitting to promote long-term viability of the building.

The Guiding Principles of Federal Leadership in High Performance and Sustainable Buildings (HPSB) outline five strategic principles aimed at helping federal agencies and organizations reduce the total ownership cost of facilities, improve energy efficiency and water conservation, provide safe, healthy, and productive building environments; and, promote sustainable environmental stewardship. The Principles guide agencies to employ integrated design principles, optimize energy performance, protect and conserve water, enhance indoor environmental quality, and reduce the environmental impact of materials.

In addition to the foregoing requirements, Section 109 of EPAct 2005 includes the following requirements pertaining to building performance standards:

- New Federal buildings (commercial or residential) are to be designed to exceed by 30 percent or more the standards set by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) or the International Energy Code.
- Sustainable design principles must be applied to new buildings.
- Federal agencies must identify new buildings in their budget requests and those that meet or exceed the standards, which DOE must then include in its annual report.

Incorporating sustainable and high performance building design elements is critical to DoD's efforts to achieve energy and water efficiency within its facilities. DoD continues to incorporate sustainable design elements into the life cycle design of buildings. To ensure compliance with the HPSB Guiding Principles, DoD uses performance thresholds set forth in the United States Green Building Council (USGBC)

Leadership in Energy and Environmental Design (LEED) Silver rating system and ASHRAE 90.1, each of which is described below.

DoD Progress towards meeting ASHRAE 90.1 Standards

EPAct2005 and DODI 4170.11 requires the energy performance of all new construction to exceed the ASHRAE 90.1 standard by 30 percent. ASHRAE 90.1 standards establish minimum energy efficiency requirements for buildings, other than lowrise residential buildings, for design, construction, and operational maintenance. ASHRAE 90.1 also provides specific guidance on the rules and procedures for conducting building energy use simulations.

Appendix G includes a list of all new DoD buildings constructed since 2007, and their energy consumption levels relative to ASHRAE 90.1 standards. In FY2010, 99.8 percent of new building designs, started since FY2007, are expected to be meet the 30 percent better than the ASHRAE 90.1 standard.

The Air Force integrated ASHRAE 90.1 standards into its MILCON programs. To reinforce the importance the Air Force places on the incorporation of sustainable development concepts in the planning, design, construction, and operation of its facilities and infrastructure, the Air Force issued a Sustainable Design and Development (SDD) policy memorandum with the goal of reducing the environmental impact and total owernship cost of facilities; improving energy efficiency and water conservation; and providing safe, healthy, and productive built environments.

The Army formed the Energy Integrated Product Team (IPT) to analyze and quantify the impact of incorporating energy efficiency features in MILCON projects, and to develop necessary Army guidance. In all Requests for Proposals, the Army includes the requirement to meet EPAct 2005 design requirements in contracted building design and construction services that are processed through the Army Corps of Engineers. The designer is required to design buildings to use 30 percent less energy than the ASHRAE 90.1 standard, meet LEED Silver requirements, purchase Energy Star equipment, install metering, and specify premium efficiency electric motors. The Army implemented a new policy in FY2010 that sets a new approach to the design and construction of efficient military construction projects and major renovations by using ASHRAE Standard 189.1 as the baseline to develop green building designs.

The Navy Facilities Management Command (NAVFAC) guidance requires that new buildings comply with the EPAct 2005 mandates regardless of location, occupancy, size, funding source, client, or temporary nature. Additionally, NAVFAC is developing a Shore Energy Building Code/Policy to detail recommended acquisition rules and thresholds for mandatory energy investments.

DoD Progress in meeting Green Buildings Standards

DODI 4170.11 and E.O. 13514 require new buildings to be contructed to Leadership in Energy and Environmental Design (LEED) Silver standards, where cost effective. In FY FY2010 DoD continued to make good progress in adding LEED buidings to its inventory:

The Air Force has 13 LEED certified facilities, including two LEED Silver hangars, one 1 LEED Gold facility, 736 LEED Silver certified homes, and over 300 projects registered for certification. The Army

has 24 LEED certified facilities, including one that meets LEED Platinum standards, six that achieve the Gold standard, and 15 that meet the Silver standard. The Navy has 25 LEED certified facilities, including nine that were completed in FY2010. The WHS Pentagon Reservation has five LEED certified facilities, including one that meets the Silver standard.

EISA 2007 Section 433 Required Reduction in Fossil Fuel Use

EISA 2007 §433 specifies that buildings should be designed so that the fossil fuel-generated energy consumption of the buildings is reduced, as compared to energy consumption by a similar building in FY2003. Consumption comparisons use the Commercial Buildings Energy Consumption Survey or Residential Energy Consumption Survey data from the Energy Information Agency (EIA) as a reference point.

For FY2010, DoD provided DOE with consolidated feedback from DoD Components to address DOE's notice of proposed rulemaking for fossil fuel-generated energy consumption reduction for new federal buildings and major renovations of federal buildings. DoD will continue to work with DOE to analyze and quantify the effect of such a policy, and develop appropriate follow-on implemenatation policy. Until more specific guidace becomes official, DoD Components will address the mandate through continued implementation of current energy conservation measures and efficient building design.

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8 Monitoring Facilities Energy Performance

DoD facility energy managers require accurate and comprehensive energy performance data to manage their installations effectively and make the right decisions on energy purchases and energy capital investments. DoD is developing an integrated, enterprise-wide data management approach for all of its facilities that will meet the requirement specified in EPAct 2005 that 100 percent of DoD facilities incorporate electric metering by FY2012 and expand DoD's ability to analyze and report accurate energy performance data across multiple organizational levels. Section 8.1 describes progress in the area of metering while Section 8.2 describes activities related to energy management systems.

DoD Progress toward Energy Metering Goals

DoD made significant progress in FY2010 toward meeting the EPAct 2005 goal of metering 100 percent of appropriate[11] buildings by FY2012. As shown in Table 8.1, DoD has incorporated electric metering in 95 percent of its appropriate buildings. DoD also made good progress towards meeting the EISA 2007 goal of 100 percent metering of water, natural gas, and steam in appropriate buildings by FY2016.

Table 8.1 DoD Metering Progress FY2010

Electric	# of Appropriate Buildings	Cumulative Buildings Metered
DoD	19390	95%
Air Force	6160	87%
Army	4378	100%
DoN	7878	100%
DoD Agencies	974	77%
Water	**# of Appropriate Buildings**	**Cumulative Buildings Metered**
DoD	4849	74%
Air Force	2124	48%
Army	0	0%
DoN	2226	100%
DoD Agencies	499	66%
Natural Gas	**# of Appropriate Buildings**	**Cumulative Buildings Metered**
DoD	5312	88%
Air Force	2908	80%
Army	883	100%
DoN	1176	100%
DoD Agencies	345	79%
Steam	**# of Appropriate Buildings**	**Cumulative Buildings Metered**
DoD	842	69%
Air Force	274	28%
Army	0	0%
DoN	472	100%
DoD Agencies	96	36%

[11] Appropriate buildings are determined by either minimum size (GSF) or annual energy cost.

The Air Force has installed over 8,800 utility meters between FY2007 and FY2010 in appropriate buildings. In FY2010, the percentage of electric metered buildings decreased from 93 percent to 87 percent from FY2009 due to a change in Air Force metering policy which included additional buildings. The Air Force continued to improve the incorporation of water, gas and steam advanced metering devices throughout FY2010. The Air Force also developed a programmatic approach for implementing a standard, enterprise-wide automated meter reading (AMR) program that will be in place by October 2012.

The Army has installed 6,000 advanced electric meters throughout FY2010.[12] The Army has improved its metered building inventory from 2,000 buildings prior to FY2008 to over 4,370 metered through FY2010. Among those same buildings metered for electricity, the Army metered over 880 buildings for natural gas.

In FY2010, the Department of the Navy installed over 11,700 utility meters in appropriate buildings. Through FY2010, the Department of the Navy has met the FY2012 target for installing electric, water, natural gas and steam meters at 100 percent of its appropriate buildings. In addition, the Department of the Navy is developing an enterprise-wide software and integrated metering system to collect and pay utility invoices, allocate consumption and bills to tenants, and incorporate metered data for energy management purposes in a centralized and accessible database.

Table 8.2 presents DoD funding levels for meter installation, separated by Military Department and type of utility. DoD funded $190 million for 19,000 advanced meters in FY2010, and budgeted an additional $133 million to install another 12,800 meters in FY2011.

Table 8.2 DoD Metering Funding—FY2010 And FY2011

		Funded FY2010		Budgeted FY2011	
		Advanced Meters	Investment ($Million)	Advanced Meters	Investment ($Million)
DoD	Electric	14,200	140	7,800	84
	Water	1,870	19	3,200	31
	Gas	2,930	30	1,030	10
	Steam	165	2	770	8
DoD Totals	**All meters**	19,165	190	12,800	133
Air Force	Electric	5,400	54	1,100	11
	Water	1,000	10	1,300	13
	Gas	2,300	23	710	7
	Steam	80	1	70	1
Army	Electric	5,800	60	2,900	34
	Water	-	-	-	-
	Gas	-	-	-	-
	Steam	-	-	-	-
DoN	Electric	3,000	26	3,800	39
	Water	870	9	1,900	19
	Gas	630	6	320	3
	Steam	85	1	700	7

[12] Advanced meters have the capability to measure and record interval data (at least hourly for electricity), and communicate the date to a remote location in a format that can be easily integrated in to an advanced metering system. EPAct 2005 Section 103 requires at least daily data collection capability.

DoD Development of Energy Information Management Systems

As DoD strives to improve its energy efficiency and security, accurate, real-time information about energy use is essential. DoD is developing policy guidance that will require the Services to meter a larger share of their energy consumption. DoD is also leading an effort to develop a DoD-wide energy information management system using a standard set of energy information management requirements and is assessing which information management technologies (future and current) will best support them.

For FY2010, the Air Force continued to use the Defense Utility Energy Reporting System (DUERS) while developing a new capability for utility reporting. This new Air Force Energy Reporting System (AFERS) will collect and analyze meter data to generate a variety of reports not previously available. In FY2010, the Air Force continued efforts to centralize the procurement of automated meter reading capability. The Air Force will implement this capability at 85-plus larger installations where it is cost-effective. The infrastructure includes approved communications encryption and transmission methods, enabling the Air Force to analyze and benchmark utilities usage in near real-time.

The Army's advanced metering program will allow for much more detailed monitoring and management of facilities energy use. The Army will be able to sort data by building type to identify large energy users and target them for audits, awareness training, and energy projects. New meters will also help to provide accurate readings of consumption for reimbursable customers. Efforts to move towards a centralized energy management control system (EMCS) continued in FY2010. This process includes capturing advanced meter data with connectivity to individual equipment and controllers in buildings to support real time energy management programs.

The Department of the Navy is developing an enterprise wide software and integrated metering system to collect and pay utility invoices, allocate consumption and bills to tenants, and incorporate metered data for energy management purposes in a centralized and accessible database. Facility energy managers will be able to use the CIRCUITS system to review metered data and trend reports to benchmark facilities and inform energy decisions.

In parallel with the efforts of the Military Departments to their improve energy management, DoD began in FY2010 the first phase of the Enterprise Energy Information Management (EEIM) Initiative. The EEIM Initiative will establish an enterprise-wide energy information management system that will allow facility energy managers and DoD management to monitor and manage facility energy programs. In the first phase, the necessary information structure was standardized to define the expected business processes for energy management and the information needed to support these processes. The initiative will result in the capability to manage:

- Facility Energy Consumption,
- Facility Energy Improvement,
- Production of Renewable Energy, and
- Purchase of Renewable Energy.

The next phase of the EEIM Initiative was started in FY2011 and will analyze the existing energy policies, capabilities, and information management systems; determine gaps between current and expected processes; and develop an implementation strategy to develop a enterprise wide system.

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9 Facilities Energy Improvement Strategy and Plans

This section of the AEMR briefly describes some of the key strategic planning activities of the Military Department and selected Component Agencies.

DoD facilities energy strategic planning activities focus on establishing and communicating goals for achieving federal energy mandates and priorities across all DoD Components. DoD's overarching goals for energy management include decreasing consumption of energy, decreasing fossil fuel and petroleum use, and increasing the use of alternative energy. By aligning energy initiatives with mission accomplishment and operational effectiveness, DoD Components will achieve goals that enhance mission capabilities.

Air Force Strategic Planning Activities

In FY2010, the Air Force issued a comprehensive Infrastructure Energy Plan as a key element to the overall Air Force Energy Plan. The Plan supports Air Force Policy Directives and Instructions on energy management. It now serves as the operational framework for all military and civilian Air Force personnel in communicating Air Force infrastructure energy goals, objectives, and metrics. The primary goals of the Air Force's energy strategy are to increase supply, reduce demand, and change the Air Force culture to value energy. The Infrastructure Energy Plan supports the overarching Air Force Energy Plan with four pillars:

- Improve Current Infrastructure
- Improve Future Infrastructure
- Expand Renewable Energy Use
- Manage Costs

The Air Force tailored its energy strategy to verifiably reduce energy consumption and increase the use of renewable energy resources across Air Force installations, all in an effort to increase Air Force energy independence and enhance energy security.

Army Strategic Planning Activities

The Army developed five strategic Energy Security Goals (ESGs) that incorporate the fundamental principle that the energy improvements will enhance operational capability and the ability of the Army to carry out its primary missions. The Army's five ESGs are:

- ESG 1. Reduce energy consumption
- ESG 2. Increase energy efficiency across platforms and facilities
- ESG 3. Increase use of renewable / alternative energy
- ESG 4. Assure access to sufficient energy supplies
- ESG 5. Reduce adverse impacts on the environment

To achieve the strategic ESGs, the Army is developing a variety of energy policies that promote energy efficiency and sustainable practices. These policies are far-reaching and include adoption of an integrated, whole-systems approach towards achieving net zero energy, water and waste at all Army installations;

improving the energy efficient and sustainable qualities of Army buildings through the adoption of ASHRAE Standard 189.1; pursuit of the USGBC LEED® Silver Standard in the Army's new military construction and major renovations; and the incorporation of efficient lighting at Army-owned and leased facilities and structures.

Navy Strategic Planning Activities

In FY2010, the Secretary of the Navy established several goals to encourage the efficient use of energy and generation of alternative energy for shore uses. The Department of the Navy's priority is to reduce consumption and where practical, increase capacity to generate alternative energy. The Department defines alternative energy as coming from renewable or nuclear sources. Facilities energy-specific goals include:

- By FY2020 the Department of the Navy will increase efficiency and reduce overall energy consumption at installations by 50 percent.
- By FY2020, the Department of the Navy will produce at least half of its shore-based installations' energy requirements from alternative sources. Additionally, 50 percent of the shore installations will be net zero energy consumers by FY2020.
- By FY2015, the Department of the Navy DoN will reduce petroleum use in the commercial fleet of 50,000 vehicles by 50 percent by phasing in a composite fleet of flex fuel, hybrid electric, and neighborhood electric vehicles.
- By FY2020, all of the Department of the Navy's critical infrastructure will have reliable backup power systems and redundant power systems, where viable.

In response to these goals, the Navy and Marine Corps are developing strategies to identify and fund cost-effective energy efficiency projects and then focus on renewable and alternative energy development. Since FY2010, the Department of the Navy has been conducting comprehensive facility energy and water evaluations in order to develop facility-wide projects in anticipation of increased funding in FY2012 for energy projects. Project identification and development efforts will enable DoN to make further progress in energy reductions.

DoD Component Agencies Strategic Planning Activities

The Defense Contract Management Agency (DCMA) has recently hired an energy manager who will review existing conditions at DCMA reportable facilities and propose corrective actions for energy and water saving opportunities. This energy official will also develop an energy/water efficiency and conservation policy. These efforts will aid in meeting executive orders and other pertinent directives establishing baseline values, goals, and actions to meet these goals.

In FY2010, the TRICARE Management Activity (TMA) energy management program continued to promote information sharing among the medical service energy programs, improve data availability, and develop tools and resources to enhance energy management in DoD medical facilities. Highlights included a one day roundtable, held in conjunction with the American Society for Healthcare Engineering annual conference, in July 2010. Energy program managers and select facility managers from all three

service medical commands attended the summit. The purpose was to discuss the need for consistent policy and guidance for energy efficient operations and maintenance (O&M) of complex, medical facilities. As a result, TMA is working to develop O&M policy appropriate for these specialty buildings and that will address the issues and concerns raised by the facility managers during the roundtable event. Although TMA reports only on specific installations through FY2011, the energy program encompasses all DoD medical treatment facilities.

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APPENDIX A
LIST OF ENERGY ACRONYMS

Acronym	Definition
A7C	Air Force Civil Engineer
A7CAE	HQ United States Air Force, Office of the Civil Engineer, Asset Management and Operations Division, Energy Management Branch
ACC	Air Combat Command
AEE	Association of Energy Engineers
AEMR	Annual Energy Management Report
AETC	Air Education and Training Command
AFB	Air Force Base
AFCEE	Air Force Center for Engineering and the Environment
AFCESA	Air Force Civil Engineer Support Agency
AFERS	Air Force Energy Reporting System
AFFEC	Air Force Facility Energy Center
AFIT	Air Force Institute of Technology
AFMC	Air Force Material Command
AFS	Air Force Station
AFSPC	Air Force Space Command
AFV	Alternative Fuel Vehicle
AMR	Automated Meter Reading
ANGB	Air National Guard Base
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASA (I&H)	Assistant Secretary of the Army for Installations, Energy and Environment
ASN (EI&E)	Assistant Secretary of the Navy for Energy, Installations and Environment
BBTU	Billion British thermal units
BRAC	Base Realignment and Closure
BTU	British thermal unit
BUMED	Bureau of Medicine and Surgery
CEM	Certified Energy Manager
CEU	Continuing Education Unit
CES	Civil Engineering Squadron
CFC	Chlorofluorocarbons
CFMOU	Construction and Facility Management Office University
CIRCUITS	Comprehensive Utilities Information Tracking System
CMA	Court of Military Appeals
CNIC	Commander, Navy Installations Command
CONUS	Contiguous United States
COR	Contracting Officer Representative
DASA (E&S)	Deputy Assistant Secretary of the Army for Energy and Sustainability
DCMA	Defense Contract Management Agency
DeCA	Defense Commissary Agency

DeCAH	DeCA Design Criteria Handbook
DFAS	Defense Finance and Accounting Service
DIA	Defense Intelligence Agency
DLA	Defense Logistics Agency
DoA	Department of the Army
DoAF	Department of the Air Force
DoD	Department of Defense
DOE	Department of Energy
DoN	Department of the Navy
DUERS	Defense Utility Energy Reporting System
DUSD(I&E)	Deputy Under Secretary of Defense (Installations and Environment)
E85	85 percent ethanol fuel
ECB	Engineering and Construction Bulletin
ECIP	Energy Conservation Investment Program
EEIM	Enterprise Energy Information Management
EIA	Energy Information Agency
EISA	Energy Independence and Security Act
EM	Energy Managers
EMCS	Energy Management Control Systems
EMSG	Energy Management Steering Group
E.O.	Executive Order
EPA	Environmental Protection Agency
EPACT	Energy Policy Act
ESCO	Energy Service Company
ESG	Energy Security Goal
ESPC	Energy Savings Performance Contract
ESPP	Energy Savings Performance Program
ESTCP	Environmental Security Technology Certification Program
EUL	Enhanced Use Leases
FEMP	Federal Energy Management Program
FES	Facility Energy Supervisor
FSRM	Facility Sustainment, Restoration, and Modernization
FY	Fiscal Year
GSA	General Services Administration
GSF	Gross Square Feet
GSHP	Ground Source Heat Pump
HCFC	Hydro chlorofluorocarbons
HFSC	Health Facilities Steering Committee
HQ	Headquarters
HQCC	Headquarters Command Complex (MDA)
HQDA	Headquarters Department of the Army
HVAC	Heating, Ventilating, and Air Conditioning
IESP	Infrastructure Energy Strategic Plan
ILA	Industrial, Landscape and Agriculture

IMCOM	Installation Management Command
ISSA	Inter-Service Support Agreement
KW	Kilowatt
KWH	Kilowatt-Hour
LCCA	Life-Cycle Cost Analysis
LED	Light Emitting Diode
LEED	Leadership in Energy and Environmental Design
LFD	Lease Facilities Division (WHS)
LSS	Lean Six Sigma
M&V	Measurement & Verification
MAJCOM	Major Command
MCAS	Marine Corps Air Station
MCLB	Marine Corps Logistics Base
MCRD	Marine Corps Recruit Depot
MDA	Missile Defense Agency
MDA/DOH	MDA Office of Human Resources
MDMS	Meter Data Management System
MEDCOM	Medical Command (DoA)
MILCON	Military Construction
MMBTU	Million British Thermal Units
MW	Megawatt, 1 million Watts
MWH	Megawatt-Hour, 1 million Watt-hours
NAS	Naval Air Station
NAVFAC	Naval Facilities Engineering Command
NAVSTA	Naval Station
NAWS	Naval Air Weapons Station
NDAA	National Defense Authorization Act
NGA	National Geospatial-Intelligence Agency
NH	Naval Hospital
NIST	National Institute of Standards and Technology
NMC	Naval Medical Center
NREL	National Renewable Energy Laboratory
NSA	National Security Agency
NTV	Non-Tactical Vehicles
NZEI	Net Zero Energy Installation
O&M	Operations and Maintenance
OMB	Office of Management and Budget
OSD	Office of the Secretary of Defense
OTEC	Ocean thermal energy conversion
OUSD (I&E)	Office of the Undersecretary of Defense Installations and Environment
PACAF	Pacific Air Forces
PH&RP	Pentagon Heating & Refrigeration Plant
PM	Program Management
PMRF	Pacific Missile Range Facility

POM	Program Objective Memorandum
PPA	Power Purchase Agreements
PV	Photovoltaic
QSR	Quality Surveillance Representative
RDF	Remote Delivery Facility (WHS)
REC	Renewable Energy Certificate
REM	Resource Efficiency Manager
RFP	Request for Proposal
RMCS	Refrigeration Monitoring and Control Systems
REPD	Renewable Energy Project Development
SAF/IE	Secretary of the Air Force for Installations, Environment and Logistics
SDD	Sustainable Design and Development
SECNAV	Secretary of the Navy
SE ITP	Sustainability and Environment Integrated Product Team
SERDP	Strategic Environmental Research and Development Program
SFG	Senior Focus Group
SIOQ	Quality Assurance Division (NGA)
SRM	Sustainment, Restoration and Modernization
TMA	TRICARE Management Agency
UESC	Utility Energy Service Contract
UFC	Unified Facilities Criteria
USACE	US Army Corp of Engineers
USAF	United States Air Force
USAMRIID	United States Army Medical Research Institute for Infectious Diseases
U.S.C	United States Code
USGBC	United States Green Building Council
USMC	United States Marine Corps
VAV	Variable Air Volume
VCSAF	Vice Chief of Staff Air Force
WRAMC	Walter Reed Army Medical Center
WHS	Washington Headquarters Service

APPENDIX B
FY2010 DOD ENERGY MANAGEMENT PERFORMANCE

Summary Goal Performance

Energy Management Requirement	FY 2003 Btu/GSF	FY 2010 Btu/GSF	% Change in Goal Subject Buildings Intensity FY 2003 to FY 2010	FY 2010 Goal Subject Buildings Intensity Reduction Target
Energy Intensity Reduction in Goal (NECPA/EO 13423) subject facilities	116,134	102,929	-11.40%	-15%

Renewable Energy Requirement	Renewable Electricity Use (MWH)	Total Electricity Use (MWH)	RE as a Percentage of Renewable Electricity Use	FY 2010 Goal Target
Eligible renewable electricity use as a percentage of total electricity use (EPACT 2005)	1,243,462	30,252,399	4.10%	5%
10 USC 2911(e)-DOD 25% by 2025 Goal - All Renewable ENERGY produced or procured compared to ELECTRIC consumption. (DISP Definition)	Renewable Energy Use (Billion Btu)	Total Electricity Use (Billion Btu)	RE as a Percentage of Energy Use	
	12,290	103,221	9.6%	

Water Intensity Reduction Goal	FY 2007 Gallon/ GSF	FY 2010 Gallon/ GSF	Percent Change 2007-2010	FY 2010 Goal Target
Reduction in potable water consumption intensity	59.8	52.1	-12.90%	-6%

Metering of Electricity Use	Cumulative # of Buildings Metered	Cumulative % of Electricity Metered	Cumulative % of Appropriate Buildings Metered	FY 2012 Goal Target
Standard Electricity Meters in FY 2010	5,324	18.51%	27.50%	100%
Advanced Electricity Meters in FY 2010	13,045	38.90%	67.30%	Maximum Extent Possible
Total Electricity Meters in FY 2010	18,369	57%	94.70%	

Metering of Water Use	Cumulative # of Buildings Metered	Cumulative % of Appropriate Buildings Metered	FY 2012 Goal Target
Standard Water Meters in FY 2010	1,666	34.40%	100%
Advanced Water Meters in FY 2010	1,916	39.50%	Maximum Extent Possible
Total Water Meters in FY 2010	3,582	73.90%	

Metering of Natural Gas	Cumulative # of Buildings Metered	Cumulative % of Natural Gas Metered	Cumulative % of Appropriate Buildings Metered	FY 2012 Goal Target
Standard Natural Gas Meters in FY 2010	756	13.05%	14.00%	100%
Advanced Natural Gas Meters in FY 2010	3,920	27.80%	73.80%	Maximum Extent Possible
Total Natural Gas Meters in FY 2010	4,676	40.80%	87.80%	

Metering of Steam	Cumulative # of Buildings Metered	Cumulative % of Steam Metered	Cumulative % of Appropriate Buildings Metered	FY 2012 Goal Target
Standard Steam Meters in FY 2010	468	0.53%	55.60%	100%
Advanced Steam Meters in FY 2010	116	0.00%	13.80%	Maximum Extent Possible
Total Steam Meters in FY 2010	584	0.50%	69.40%	

Federal Building Energy Efficiency Standards	Percent of New Building Designs	FY 2007 forward Goal Target
Percent of new building designs started since beginning of FY 2007 that are 30 percent more energy efficient than relevant code, where life-cycle cost effective:	99.80%	100%

Non-Tactical Fleet Vehicles Petroleum Fuel Use	FY 2010 Total Consumption (BBTU)
	638,916

Investments in Energy and Water Management Sources of Investment	Investment Value (Thou. $)	Anticipated Annual Savings (Million Btu)
Direct obligations for facility energy efficiency improvements	$456,896.00	2,662,392.00
Investment value of ESPC Task/Delivery Orders awarded in fiscal year	$290,576.50	1,241,113.00
Investment value of UESC Task/Delivery Orders awarded in fiscal year	$45,716.00	351,674.00
Total	**$793,188.50**	**4,255,179.00**

	Percentage
Total investment as a percentage of total facility energy costs	21.40%
Financed (ESPC/UESC) investment as a percentage of total facility energy costs	9.10%

Goal Subject Buildings

FY 2010 Goal Subject Buildings Gross Square Feet (Thousands)	1,949,734
FY 2007 Goal Subject Buildings Gross Square Feet (Thousands)	1,892,554
Goal Subject Buildings FY 2003 Baseline (Btu/GSF)	116,134

	Annual Consumption BBTU	% Consumption by Energy Type	Annual Cost (Thous. $)	% Cost by Energy Type
Electricity	94,261	45%	$2,355,884	66.30%
Coal	15,502	7%	$78,744	2.20%
Fuel Oil	18,219	9%	$336,512	9.50%
Nat Gas	71,762	34%	$561,073	15.80%
Purchase Steam	6,198	3%	$127,240	3.60%
LPG and Other	4,153	2%	$48,034	1.40%
Total Delivered Btu (Billion Btu)	210,691			
Goal Building Energy Costs (thou.$)			$3,551,476	
Btu/GSF:	108,061.34			
Goal Building RE Credit (BBtu):	6,484.32			
Btu/GSF w/RE Purchase Credit:	104,735.59			
Source Energy Savings Credit	3,521.71			
NET Intensity (Btu/GSF) w/RE & Source Btu Credit:	102,929			

Goal Excluded Facilities

FY 2010 Goal Excluded Facilities Gross Square Feet (Thousands	4,912
FY 2007 Excluded Facilities Gross Square Feet (Thousands)	61,674
Goal Excluded Facilities FY 2003 Baseline (Btu/GSF)	

	Annual Consumption BBTU	% Consumption by Energy Type	Annual Cost (Thous. $)	% Cost by Energy Type
Electricity	8,000	81.90%	$193,239	92.30%
Coal	-		$ -	
Fuel Oil	258	2.60%	$4,493	2.10%
LPG	5	0.10%	$117	0.10%
Nat Gas	1,171	12.00%	$7,694	3.70%
Purchased Steam	334	3.40%	$3,728	1.80%
Renewable Energy Purchases only	-		$ -	
Total Delivered Btu (Billion Btu)	9,768			
Excluded Building Energy Costs (thou.)			$209,271	
Btu/GSF:	1,988,548			
Excluded Building RE Credit (BBtu):	-			
Btu/GSF w/ RE Purchase Credit:	1,988,548			
Source Energy Savings Credit	616			
Btu/GSF w/ RE & Source Btu Credit:	1,863,219			

Non-Fleet Vehicles and Other Equipment (Does not include Fleet Vehicle Data Captured by FAST System)						
2010	Consumption Units	Annual Consumption	Annual Cost (Thou. $)	Unit Cost ($)	2010 Btu (Billion)	2010 % Consumption by Fuel type
Auto Gasoline	Thou. Gal.	84,617	$208,500	$2.46/gallon	10,577.2	2%
Diesel-Distillate	Thou. Gal.	180,064	$463,115	$2.57/gallon	24,974.9	4%
LPG/Propane	Thou. Gal.	1,191	$12,649		113.8	0%
Aviation Gasoline	Thou. Gal.	1,661	$12,715	$7.66/gallon	207.6	0%
Jet Fuel	Thou. Gal.	3,918,614	$9,036,849	$2.31/gallon	509,419.9	80%
Navy Special	Thou. Gal.	617,168	$1,319,197	$2.14/gallon	85,601.2	13%
Other	Thou. Gal.	57,842	$144,373	$2.51/gallon	8,021.7	1%
Total			**$11,197,397**		**638,916**	**100%**

Fleet Vehicle Consumption and Costs Captures by the FAST System			
Fuel Type	$ Fuel Cost	% Total Cost	% Total Consumption
Biodiesel	$12,360,702	5%	5%
Diesel	$51,494,330	20%	20%
Electricity	$91,216	0%	0%
Ethanol	$7,864,320	3%	2%
Gasoline	$178,970,422	71%	72%
Hydrogen	$18,160	0%	0%
Methanol	$-	0%	0%
Liquid propane	$206	0%	0%
Natural Gas	$560,243	0%	0%
DoD Total	**$251,359,599**	**100%**	**100%**

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APPENDIX C
HOUSE ARMED SERVICES COMMITTEE LETTER

IKE SKELTON, MISSOURI, CHAIRMAN
JOHN SPRATT, SOUTH CAROLINA
SOLOMON P. ORTIZ, TEXAS
GENE TAYLOR, MISSISSIPPI
NEIL ABERCROMBIE, HAWAII
SILVESTRE REYES, TEXAS
VIC SNYDER, ARKANSAS
ADAM SMITH, WASHINGTON
LORETTA SANCHEZ, CALIFORNIA
MIKE McINTYRE, NORTH CAROLINA
ROBERT A. BRADY, PENNSYLVANIA
ROBERT ANDREWS, NEW JERSEY
SUSAN A. DAVIS, CALIFORNIA
JAMES R. LANGEVIN, RHODE ISLAND
RICK LARSEN, WASHINGTON
JIM COOPER, TENNESSEE
JIM MARSHALL, GEORGIA
MADELEINE Z. BORDALLO, GUAM
BRAD ELLSWORTH, INDIANA
PATRICK J. MURPHY, PENNSYLVANIA
HANK JOHNSON, GEORGIA
CAROL SHEA-PORTER, NEW HAMPSHIRE
JOE COURTNEY, CONNECTICUT
DAVID LOEBSACK, IOWA
JOE SESTAK, PENNSYLVANIA
GABRIELLE GIFFORDS, ARIZONA
NIKI TSONGAS, MASSACHUSETTS
GLENN NYE, VIRGINIA
CHELLIE PINGREE, MAINE
LARRY KISSELL, NORTH CAROLINA
MARTIN HEINRICH, NEW MEXICO
FRANK M. KRATOVIL, JR., MARYLAND
ERIC J.J. MASSA, NEW YORK
BOBBY BRIGHT, ALABAMA
SCOTT MURPHY, NEW YORK
DAN BOREN, OKLAHOMA

HOUSE COMMITTEE ON ARMED SERVICES

U.S. House of Representatives

Washington, DC 20515–6035

ONE HUNDRED ELEVENTH CONGRESS

HOWARD P. "BUCK" McKEON, CALIFORNIA
ROSCOE G. BARTLETT, MARYLAND
MAC THORNBERRY, TEXAS
WALTER B. JONES, NORTH CAROLINA
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J. RANDY FORBES, VIRGINIA
JEFF MILLER, FLORIDA
JOE WILSON, SOUTH CAROLINA
FRANK A. LoBIONDO, NEW JERSEY
ROB BISHOP, UTAH
MICHAEL TURNER, OHIO
JOHN KLINE, MINNESOTA
MIKE ROGERS, ALABAMA
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MIKE COFFMAN, COLORADO
THOMAS J. ROONEY, FLORIDA
TODD RUSSELL PLATTS, PENNSYLVANIA

ERIN C. CONATON, STAFF DIRECTOR

May 13, 2010

Dr. Ashton B. Carter
Under Secretary of Defense for Acquisition, Technology & Logistics
3000 Defense Pentagon, 3E673
Washington, DC 20301

Dear Secretary Carter:

We write regarding one of the Department of Defense's (DOD) most aggressive and long term energy goals: to produce or procure 25 percent renewable energy in DOD facilities by 2025. We are aware of concerns of ambiguity surrounding the terms included in the goal, such as "produce," "procure," and "consumes," and elements used in the calculation, such as non-electric energy.

We understand that, as originally conceived by the Department of Defense and prior to codification by section 2852 of the John Warner National Defense Authorization Act for Fiscal Year 2007 (Public Law 109-364), this goal was calculated by dividing the total amount of renewable energy consumed by facilities, including electric and non-electric renewable sources, by the total electricity consumed by those facilities. The committee is aware that, as codified by section 2852 of Public Law 109-364, non-electric renewable energy, such as thermal energy, was excluded from contributing to this goal. The committee supports the inclusion of non-electric renewable energy towards this goal. For this reason, section 2842 of the National Defense Authorization Act for Fiscal Year 2010 (Public Law 111-84) amended section 2852 of Public Law 109-364 to include non-electric renewable energy in the definition of renewable energy and in the goal. The committee did not intend for any changes to impact the use of facility electric energy as the denominator for the calculation of this goal.

We support the Department's efforts to comply with the goal to produce or procure renewable energy such that it accounts for 25 percent of the Department's facility electrical consumption by fiscal year 2025. We encourage the Secretary of Defense to promulgate

Secretary Carter
May 13, 2010
Page 2

implementing guidance that clarifies the terms and elements of the goal consistent with the goal's original intent and as the Secretary deems appropriate.

Sincerely,

SOLOMON P. ORTIZ
Chairman
Readiness Subcommittee

J. RANDY FORBES
Ranking Member
Readiness Subcommittee

SPO/JRF:er

APPENDIX D
OMB A-11 CIRCULAR

1.1 Identification of funds for Energy Efficiency Management as required by E.O. 13423							
Activity Classification/ DoD Organization	2010		2011		2012		Comments
	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	
ESPC and/or UESC negotiation/administration							
ARMY	$1,074	O&M	$2,266	O&M	$2,273	O&M	
DLA	$-	O&M	$1.0		$1.0		Scaled from savings
ESPC and/or UESC negotiation/ administration–Total	$1,074		$2,267		$2,274		
Direct spending on energy efficiency							
ARMY	$675	DWCF	$257	DWCF	$100	DWCF	
	$15,002	MILCON	$34,902	MILCON	$13,928	MILCON	
	$65,133	O&M	$46,349	O&M	$45,323	O&M	
DECA	$1,081	DWCF	$1,081	DWCF	$1,081	DWCF	
	$520	MILCON	$900	MILCON	$500	MILCON	ECIP Milcon
DLA	$-	DWCF	$100	DWCF	$300	DWCF	
	$3,400	MILCON	$11,500	MILCON	$13,100	MILCON	
	$40,200	O&M	$45,000	O&M	$48,000	O&M	SRM Direct Projects
NAVY	$23,000	ARRA	$-	ARRA	$-	ARRA	
	$36,000	DWCF	$36,000	DWCF	$37,000	DWCF	
	$-	MILCON	$-	MILCON	$184,000	MILCON	Milcon Direct Projects
	$-	O&M	$80,000	O&M	$395,000	O&M	SRM Direct Projects
USAF	$21,800	MILCON	$22,400	MILCON	$16,000	MILCON	ECIP Milcon
	$189,300	O&M	$202,101	O&M	$164,101	O&M	SRM Direct Projects
NAVY	$7,000	O&M	$23,000	O&M	$219,000	O&M	
	$7,000	MILCON	$5,000	MILCON	$5,000	MILCON	
Direct spending on energy efficiency – Total	$410,111		$508,590		$1,142,433		
Energy Star ® building design/construction incremental costs							
ARMY	$39,310	O&M	$34,592	O&M	$37,465	O&M	
TMA	$-	DHP	$2	DHP	$-	DHP	
NAVY	$61,000	MILCON	$62,000	MILCON	$63,000	MILCON	Projected Incremental MIL-CON costs ($K)
Energy Star ® building design/construction incremental costs – Total	$100,310.0		$96,593.5		$100,465.0		
Renewables Purchases							
ARMY	$369		$370		$371		Renewable Energy Certificate Purchases
	$17,234		$17,522		$18,567		Renewable Energy Purchases

1.1 Identification of funds for Energy Efficiency Management as required by E.O. 13423							
Activity Classification/ DoD Organization	2010		2011		2012		Comments
	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	
NAVY	$-		$20,000		$70,000		Renewable Energy Purchases
USAF	$200		$200		$400		Renewable Energy Certificate Purchas-es
	$13,600		$16,100		$19,400		Renewable Energy Purchases
Renewables Purchases – Total	$31,403.0		$54,192.0		$108,738.0		
On-site generation and renewable power generation							
ARMY	$35,645	MILCON	$63,000	MILCON	$38,000	MILCON	
	$28,060	O&M	$25,033	O&M	$27,462	O&M	
DLA	$-	DWCF	$29	DWCF	$27	DWCF	SRM Direct Projects
	$-	MILCON	$-	MILCON	$1,200	MILCON	ECIP Milcon
	$-	O&M	$1,100	O&M	$1,400	O&M	SRM Direct Projects
NAVY	$23,000	MILCON	$24,000	MILCON	$25,000	MILCON	
USAF	$8,000	MILCON	$5,000	MILCON	$10,000	MILCON	ECIP Milcon
On-site generation and renewable power generation – Total	$94,705.0		$118,161.9		$103,089.3		
Other (please specify)							
Other – Total	$0.0		$0.0		$0.0		
Total – Section 1-1	**$637,603**		**$779,804**		**$1,456,999**		

1.2 Identification of funds for Transportation Efficiency Management as required by E.O. 13423							
Activity Classification/ DoD Organization	2010		2011		2012		Comments
	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Page(s) in Budget Submission to OMB
Acquisition of alternative fuel vehicles							
ARMY	$ 60	O&M	$60	O&M	$-	O&M	Environmental Restoration
	$ 7,500	O&M	$7,900	O&M	$8,300	O&M	
	$ 40	PRO-CURE-MENT, Army	$-	PRO-CURE-MENT, Army	$-	PRO-CURE-MENT, Army	
	$-	PRO-CURE-MENT, Army	$-	PRO-CURE-MENT, Army	$20	PRO-CURE-MENT, Army	
	$319	O&M	$32	O&M	$36	O&M	ANG
	$11	WCF	$11	WCF	$257	WCF	REV & MGT FNDS
DCMA	$215	O&M	$215	O&M	$215	O&M	
DLA	$145.0	WCF	$148.0	WCF	$150.0	WCF	REV & MGT FNDS
Acquisition of alternative fuel vehicles – Total	$8,290.0		$8,366.0		$8,978.0		
Infrastructure development and use of alternative fuels							
ARMY	$660.0	MILCON	$0.0	MILCON	$0.0	MILCON	
	$5.0	O&M	$5.0	O&M	$5.0	O&M	ANG
DLA	$0.0	WCF	$137.0	WCF	$37.0	WCF	
NAVY	$0.0	DWCF	$0.0	DWCF	$125,000.0	DWCF	REV & MGT FNDS
	$0.0	SRM	$0.0	SRM	$10,000.0	SRM	O&M - Planned spending on SRM Fuels projects
Infrastructure development and use of alternative fuels – Total	$665.0		$142.0		$135,042.0		
Implementation of compliance strategy, including any modifications							
ARMY	$222.0	O&M	$239.0	O&M	$259.0	O&M	
	$2.0	WCF	$2.0	WCF	$2.0	WCF	REV & MGT FNDS
DLA	$50.0	WCF	$50.0	WCF	$50.0	WCF	REV & MGT FNDS
Implementation of compliance strategy, including any modifications – Total	$274.0		$291.0		$311.0		
Direct spending on training							
Direct spending on training – Total	$0.0		$0.0		$0.0		

1.2 Identification of funds for Transportation Efficiency Management as required by E.O. 13423							
Activity Classification/ DoD Organization	2010		2011		2012		Comments
	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Page(s) in Budget Submission to OMB
Implementation of EMS							
ARMY	$210	O&M	$250	O&M	$250	O&M	
	$720	PRO-CURE-MENT	$720	PRO-CURE-MENT	$720	PRO-CURE-MENT	
	$901	O&M	$1,654	O&M	$1,544	O&M	ANG
	$40.0	MILCON	$1,05.0	MILCON	$90.0	MILCON	ANG
	$300.0	WCF	$250.0	WCF	$200.0	WCF	
DLA	$1,132.0	WCF	$19,57.0	WCF	$1,941.0	WCF	
Implementation of EMS – Total	$3,303.0		$4,936.0		$4,745.0		
Water Efficiency:							
Potable Water Efficiency							
ARMY	$1,625	O&M	$1,135	O&M	$636	O&M	
	$921.0	O&M	$2,000	O&M	$3,000	O&M	
	$25.0	WCF	$12,425.0	WCF	$12,425	WCF	
	$405.0	ESPC	$426.0	ESPC	$450	ESPC	
	$0.0	Other	$2,584.0	Other	$6,897	Other	Production Facilities
	$929.0	SRM Direct Projects	$3,57.0	SRM Direct Projects	$463	SRM Direct Projects	
	$75.0	WCF	$75.0	WCF	$75.0	WCF	
DLA	$0.0	ECIP MILCON	$0.0	ECIP MILCON	$200	ECIP MILCON	
	$0.0	ESPC	$0.0	ESPC	$20	ESPC	
	$0.0	MILCON Direct	$100.0	MILCON Direct	$200	MILCON Direct	
	$0.0	Other	$0.0	Other	$100	Other	
	$1,000.0	SRM Direct Projects, O&M	$900.0	SRM Direct Projects, O&M	$1,100	SRM Direct Projects, O&M	
	$0.0	SRM Direct, WCF	$0.0	SRM Direct, WCF	$1,100	SRM Di-rect, WCF	
NAVY	$2,700.0	ECIP MILCON	$0.0	ECIP MILCON	$400	ECIP MILCON	
	$0.0	Other	$400.0	Other	$400	Other	Incremental MILCON
	$0.0	WCF	$1,600.0	WCF	$1,600	WCF	

1.3 Identification of funds for strengthening other management directives as required by E.O. 13423							
Activity Classification/ DoD Organization	2010		2011		2012		Comments
	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Page(s) in Budget Submission to OMB
Water Efficiency:							
Non-Potable Water Efficiency							
ARMY	$3,500.0	ARRA SRM Direct	$0.0	ARRA SRM Direct	$0.0	ARRA SRM Direct	
	$0.0	MILCON	$2,500.0	MILCON	$2,500.0	MILCON	
	$1,727.0	O&M	$470.0	O&M	$517.0	O&M	
	$60.0	WCF	$0.0	WCF -	$0.0	WCF -	
	$242.0	ESPC	$262.0	ESPC	$282.0	ESPC	
	$0.0	MILCON Direct	$0.0	MILCON Direct	$0.0	MILCON Direct	
	$989.0	SRM Direct	$443.0	SRM Direct	$476.0	SRM Direct	
DLA	$0.0	ECIP MIL-CON	$0.0	ECIP MIL-CON	$10.0	ECIP MILCON	
	$0.0	MILCON Direct	$10.0	MILCON Direct	$10.0	MILCON Direct	
	$0.0	Other	$0.0	Other	$0.0	Other	
	$0.0	SRM Direct	$510.0	SRM Direct	$0.0	SRM Direct	
	$0.0	WCF	$0.0	WCF	$510.0	WCF	
Water Efficiency – Total	$14,198.0		$26,197.0		$33,371.0		
Waste prevention (hazardous and non-hazardous) and recycling programs							
Waste prevention (hazardous and non-hazardous) and recycling programs – Total	$0.0		$0.0		$0.0		
Electronics Stewardship							
ARMY	$257	O&M	$273	O&M	$290	O&M	ANG
	$4,000	O&M	$5,000	O&M	$2,000	O&M	ARMY - RES
	$57	WCF	$9	WCF	$9	WCF	
TMA	$0.0	O&M	$0.0	O&M	$0.0	O&M	
DLA	$3,210.0	WCF	$3,018.0	WCF	$3,121.0	WCF	
Electronics Stewardship – Total	$7,524.0		$8,300.0		$5,420.0		

1.2 Identification of funds for Transportation Efficiency Management as required by E.O. 13423							
Activity Classification/ DoD Organization	2010		2011		2012		Comments
	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Page(s) in Budget Submission to OMB
Procurement of environmentally preferable motor vehicle products							
ARMY	$2,688.0	O&M	$250.0	O&M	$254.0	O&M	ANG
	$8.0	WCF	$9.0	WCF	$9.0	WCF	
DLA	$10.0	WCF	$10.0	WCF		WCF	
Procurement of environmentally preferable motor vehicle products – Total	$2,706.0		$269.0		$263.0		
Other (please specify)							
ARMY	$283.0	O&M	$306.0	O&M	$330.0	O&M	ANG
Other (please specify) – Total	$283.0		$306.0		$330.0		
Total – Section 1-2	**$12,218.0**		**$9,374.0**		**$144,924.0**		

1.3 Identification of funds for strengthening other management directives as required by E.O. 13423							
Activity Classification/ DoD Organization	2010		2011		2012		Comments
	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Page(s) in Budget Submission to OMB
Direct spending on training							
ARMY	$5.0	O&M	$20.0	O&M	$20.0	O&M	ENVIR REST
	$305.0	O&M	$400.0	O&M	$400.0	O&M	
	$2,813.0	O&M	$4749.0	O&M	$4,685.0	O&M	ANG
	$7.0	O&M	$15.0	O&M	$25.0	O&M	
	$6,095.0	WCF	$12,141.0	WCF	$12,145.0	WCF	
TMA	$0.1	O&M	$0.1	O&M	$0.0	O&M	
DLA	$0.0	O&M	$24.0	O&M	$5.0	O&M	ADMN & SRVWD ACT
Direct spending on training – Total	$9,225.1		$17,349.1		$17,280.0		
Acquisition of green products and services							
TMA	$0.02	O&M	$0	O&M	$0	O&M	
DLA	$2,443	WCF	$2,601	WCF	$3,147	WCF	
Acquisition of green products and services – Total	$2,443.0		$2,601.0		$3,147.0		
Other (please specify)							
Other (please specify) – Total	$0.0		$0.0		$0.0		
Total – Section 1-3	**$36,693.1**		**$59,383.1**		**$63,963.0**		

1.4 Savings identified IAW USC Title 10, §2912(d)	
Activity Classification/DoD Organization	**2010 Amount (thou. $)**
Amount of FY 10 energy cost savings realized, including financial benefits resulting from shared energy savings contracts	
Air Force	$134,736
Army	$132,203
Navy	$137,151
DeCA	$0.0
NSA	$0.0
TMA	$17,515
Amount of FY 10 energy cost savings realized, including financial benefits resulting from shared energy savings contracts – Total	$421,605

APPENDIX E
LARGE CAPITAL INVESTMENT PROJECTS

I. Army Retrofits And Capital Improvement Projects For FY 10

- Fort Benning was awarded a $1.7M ECIP project to install ground source heat pumps.
- Fort Bragg was awarded two ECIP projects in FY10, a $1.4M award for a UMCS system and a $1.075M award for solar walls and solar day lighting.
- Fort Carson contracted $612K for high bay lighting retrofit project using SRM funds. The lighting project was completed in October 2010. Fort Carson also completed a boiler replacement project using $846K in stimulus funds for 12 boilers.
- Fort Greely projects included replacement of storage shed mechanical systems, lighting, and building envelope improvements. The project consisted of installing T-5 industrial lighting and slab radiant heat with a new boiler including a programmable thermostat. The insulation value was increased to prescriptive standards and infiltration was reduced. Another project to renovate a maintenance facility includes converting metal halide lighting to super T-8's with controls and upgrading the HVAC system.
- Fort Hood upgraded building fluorescent lamps from magnetic ballast T-12 to electronic ballast T-8 lamps to reduce KW usage and improve power factor and replace/upgrade HVAC chillers.
- Fort Knox was awarded a $2.05M ECIP project for solar walls and solar day lighting.
- Fort Lee is renovating a building to LEED Silver standards. Work includes upgrading HVAC to a 4-pipe system with new hi-efficiency chiller, boilers, and pumps.
- Fort Meade is recommissioning the Fitness Center with new hi-efficiency condensing boilers and HVAC units, with heat recovery utilized in the swimming pool.
- Soldier Systems Center is converting a number of facilities from purchased potable water to non-potable water from their treatment system for various applications.
- Fort Riley began a project for modifying controls and connecting buildings to the Post EMCS. A project to install variable airflow in kitchen exhaust hoods was awarded for $715K. Riley awarded five ARRA-funded energy projects as follows: three projects to install DDC controls in tactical equipment facilities and connect these facilities to the EMCS for $245K, lighting, controls, and day lighting for another Maintenance facility for $1.7M, and improvements to the building envelope for a large warehouse for $564K. Fort Riley also renovated thirteen Volunteer Army barracks, which incorporated new controls, cool roofs, small photovoltaic solar, and solar domestic hot water systems.
- Fort Sill had retrofit and capital improvement projects, including stimulus funding for electrical pole replacement, chiller replacement, and water reuse for mechanical cooling. The latter will contribute to potable water reductions. Substation repairs have also been funded for improvement to a non-privatized electrical distribution system. Utility Management Control System strategies include using back-up generators for demand control. One ECIP project was funded for Reinhart Gym for the installation of solar water heating for domestic hot water and swimming pool.
- Iowa Army Ammunition Plant funded projects in FY10 to replace water mains. These projects will increase water efficiency by decreasing leaks.

- Pine Bluff Arsenal replaced all mechanical systems in one building, implementing day lighting and GSHP in a single building. Pine Bluff plans to do so again in a similar building this year.
- Tooele Army Depot replaced a steam heating system, with an electric source heating system during FY10 to reduce energy consumption and improve energy efficiency.
- U.S. Army Garrison is currently retro-commissioning 40 facilities. Various projects have been issued to replace window, package and split systems with VRF systems. ARRA funds have been used to modernize a library, flight simulator, install day lighting, and prepare roofs for a solar PV Purchase Power Agreement and to increase energy security.
- Yuma Proving Ground has completed a project of retrofitting the high intensity light fixtures in their gym to increase facility lighting efficiency and reduce energy consumption. Yuma PG also has completed a project to repair and replace degraded weather stripping and door sweeps in all of the exterior doors of real property to reduce heating and cooling costs. Part of this project incorporated infrared thermal imaging to capture before and after images as part of their measurement and verification process.
- The Army Reserve funded four large capital energy investments in FY10, classified as Full Facility Revitalization (FFR) and funded under ARRA. These projects were in Brockton, MA; Aguadilla, Puerto Rico; Fort Buchanan, Puerto Rico and Cranston, RI.

II. Air Force Retrofits And Capital Improvement Projects For FY 10

- Arnold AFB
  - Repair HVAC, Chem Lab.
  - Repair HVAC, PWT Supersonic. Replace chillers and pumps; added DDC controls.
  - Repair HVAC, Power Control. Replace HVAC in B1525 and upgraded emergency lighting.
- Edwards AFB
  - Install thermal energy storage unit at Bldg Headquarters. The unit will shift demand load to off-peak when rates are the lowest.
- Hanscom AFB
  - Replace old closed-loop heat pump system with new system of air handlers connected to the steam and chilled water supplied by the nearby central plant
- Kirtland AFB
  - Replace chillers, water softener, and window film; facility upgrades for energy conservation in eight facilities.
  - ECIP-utility upgrade. Replaced propane with natural gas and installed Watt Misers on 96 soft drink machines.
  - Repaired compressed air leaks. Worked on three facilities to repair leaks and some equipment for energy savings.
- Westover ARB
  - Maintain and repair exterior siding of hangars to bring it up to energy code for insulation ratings, etc.
- Los Angeles AFB
  - Installed automatic lighting controls in three building stairwells; installed EMCS for building HVAC system.
  - Installed automatic lighting controls in three building restrooms, offices, and common areas.
- Cheyenne Mountain Air Force Station

  - Installed adaptive frequency drives on four 450-ton chillers. Anticipated annual energy savings is 5,706 MMBtu.
- U.S. Air Force Academy
  - Renovate Cadet gym, in 7 phases to include building controls.
  - Replace three chillers, Fairchild Hall
  - Repair lighting, Falcon Field
  - Repair lighting, Community Center
  - Repair lighting, Fairchild Hall
- Aviano AB
  - Repair street and parking lights, Area F.
  - New geothermal plant will support the Fitness Center, open 24 hours/day. Energy savings of 1,078 MMBtu.

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APPENDIX F
MILCON PROGRAM RENEWABLE ENERGY INITIATIVES

I. Air Force					
Fiscal Year	Project	Location	Project Value ($000)	Renewable Type	Roof Attribute
FY10	DRBS Storage Facility	Agana, Guam	$2,000		Cool
FY10	Replace Troop Quarters	Alpena MI	$8,900		Cool
FY10	Commando Warrior Ops Fac	Andersen AFB Guam	$3,932	Solar PV, Daylighting	Solar
FY10	Munitions Admin Fac	Atlantic City NJ	$1,700		Cool
FY10	ADAL Weapons Release Facility	Aurora CO	$4,500	GSHP	Cool
FY10	Replace Hangar/Shops	Bangor ME	$28,000	Daylighting	Cool
FY10	ADAL Fire Crash/Rescue Station	Burlington VT	$6,000	Geothermal, Solar PV, Daylighting	Cool
FY10	Add to and Alter Avionics/ ECM Shop	Carswell TX	$2,000	GSHP, Solar PV, Daylighting	Cool
FY10	PRIME BEEF "S Team" Beddown	Charlotte NC	$1,900	Daylighting	Cool
FY10	Add to Squadron Operations	Cheyenne WY	$1,500		Cool
FY10	TFI – Predator Beddown – FOC	Davis AZ	$5,600		Cool
FY10	144PN Dormitory	Davis-Monthan AFB AZ	$20,000	Solar PV, Solar Thermal	Cool, Solar
FY10	HC-130J Simulator Facility	Davis-Monthan AFB AZ	$8,400	Solar PV, Solar Thermal	Cool, Solar
FY10	Dormitory (96 RM)	Eglin AFB FL	$8,512		Cool
FY10	BRAC Eglin MCP Fitness Center	Eglin AFB FL	$3,653	GSHP	
FY10	F-35 POL OPS Facility	Eglin AFB FL	$5,236		Cool
FY10	Control Tower	Eglin AFB FL	$4,595		Cool
FY10	Replace Ops and Training/ ADAL DGS	Falmouth MA	$12,800		Cool
FY10	A10 Flight Simulator Addition	Fort Wayne IN	$950		Cool
FY10	A10 Conversion Add and Alter Aircraft Shops Bldg 734	Fort Wayne IN	$2,000		Cool
FY10	Replace Squadron Operations Facility	Fresno CA	$9,800		Cool
FY10	Joint Intelligence Technical Training Facility	Goodfellow AFB TX	$18,400		Cool
FY10	Consolidated Learning Center	Goodfellow AFB TX	$12,000		Cool
FY10	Goodfellow AFB 100 unit Dorm	Goodfellow AFB TX	$14,000		Cool, Solar
FY10	TFI – F-22 Lo/Composite Rep Fac	Hickam AFB HI	$26,000	Solar PV	Cool
FY10	F-22A Consolidated Munitions Maintenance	Holloman AFB NM	$5,500		Green
FY10	Munitions Maintenance Shop	Houston TX	$1,600	Solar PV	Cool
FY10	Replace Security Forces Facilities	Klamath Falls OR	$6,000		Cool
FY10	BMT Recruit Dormitory #2	Lackland AFB TX	$55,825		Cool
FY10	BMT Satellite Classroom/ Dining Facility No. 1	Lackland AFB TX	$28,363		Cool
FY10	Evasion, Conduct After Capture Training Facility	Lackland AFB TX	$4,879		Cool

I. Air Force					
Fiscal Year	Project	Location	Project Value ($000)	Renewable Type	Roof Attribute
FY10	BMT Recruit Dormitory 2, Ph 2	Lackland AFB TX	$55,825		Cool
FY10	West and LaSalle Gate Force Protection/Access	Langley AFB VA	$10,000		Cool
FY10	Dormitory (120 Room)	MacDill AFB FL	$11,314		Cool
FY10	TFI – RED HORSE Squadron Bed-down	Mansfield OH	$11,400		Cool
FY10	BCE Facilities	Memphis TN	$9,800		Cool
FY10	Alter STARBASE Facility	Minneapolis MN	$1,900	Daylighting	Cool
FY10	FY10 Dormitory (168 Rm)	Minot AFB ND	$22,000	GSHP	
FY10	Add to and Alter Squadron Operations Facility	Mt Clements MI	$7,100		Cool
FY10	BRAC – Construct Munitions Admin Building	Mt Clemens MI	$3,100		Cool
FY10	Logistics Readiness Center	Mountain Home AFB ID	$20,000		Cool
FY10	Squadron Operations Facility	Peoria IL	$10,000		Cool
FY10	Combat Weapons Training Facility	Peterson AFB CO	$8,400		Cool
FY10	East Gate	Peterson AFB CO	$7,200		Cool
FY10	Replace Squadron Operations Facility	Portsmouth NH	$10,000	Solar Thermal, Daylighting	Cool
FY10	Replace Fire Station	Reno NV	$10,800	Solar PV	Cool
FY10	Add/Atl Aircraft Maintenance Shops	San Antonio TX	$7,900		Cool
FY10	F-16 Mission Training Center (Flight Sim) Facility	San Antonio TX	$2,000		Cool
FY10	Add/Alt AFCENT HQ	Shaw AFB SC	$21,183		Cool
FY10	TFI – Predator LRE Bed-down	Southern California CA	$8,400		Cool
FY10	Add to Fire Station	St Joseph MO	$9,300	Solar PV	Cool
FY10	Multi-Use Instructional Facility	Toledo OH	$2,000	Daylighting	Cool
FY10	KC-10 Cargo Load Trainer	Travis AFB CA	$5,750		Cool
FY10	Reaper LRE Bed-down	Watertown NY	$2,700		Cool
FY10	Massive Ordnance Penetrator	Whiteman AFB MO	$6,900		Green
FY10	TFI – Upgrade DCGS Facilities	Wichita KS	$8,700		Cool
FY10	TFI – ASOS Bed-down	Will Rogers OK	$7,300		Cool
FY10	TFI – cNAF Bed-down – Upgrade Facilities	Windsor Lock CT	$9,000	GSHP, Solar PV	Cool
FY10	Information Technology Complex Phase I	Wright-Patterson AFB OH	$24,583		Cool, Green
FY10	Replace Base Civil Engineer Complex	Wrightstown NJ	$9,700	Daylighting	Cool
FY10	Supply Warehouse	Zanesville OH	$1,000	Solar Thermal	Cool
FY10-14	Lackland Ambulatory Care Center	Lackland AFB TX	$486,000		Cool, Green

II. Army					
Fiscal Year	Project	Location	Project Value ($000)	Renewable Type	Roof Attribute
2010	Geothermal Heat Pumps	Aberdeen Proving Ground		Geothermal	
2010	Training Support Center	A.P. Hill	$9,100	GSHP	
2010	EOD Training Area	A.P. Hill	$9,000	GSHP	Cool
2010	Infantry Platoon Battle Course	A.P. Hill	$4,900		Cool
2010	Flight Control Tower	Belvoir		GSHP	
2010	Remote Inspec. Facility	Belvoir		GSHP	Cool
2010	Brigade Complex MEB	Drum	$55,000	GSHP	
2010	Battalion Complex	Drum	$61,000	GSHP	
2010	20th ASOS	Drum	$20,440	GSHP	
2010	WIT Complex	Drum	$21,000	GSHP	
2010	Geothermal Heat Pumps	Hamilton	$2,990	GSHP	
2010	Solar PV Array	Meade	$15,000	Solar electric	
2010	New HVAC and Boilers	Meade		Solar Thermal	
2010	UEPH Barracks	Ft Myer Bldg 421	$22,000	Solar domestic water	Solar
2010	82nd Chapel	Fort Bragg	$11,200	Solar Thermal	Cool
2010	PN77416 - Ground Source Hear Transfer System - Fort Gordon PDR	Fort Gordon	$1,000	Geothermal GSHP	
2010	WIT Barracks	Fort Knox	$26,987	Geothermal	
2010	WIT DFAS	Fort Knox	$6,816	Geothermal	
2010	WIT Administration	Fort Knox	$9,950	Geothermal	
2010	MI Battalion HQ	Fort Carson	$2	300 KW PV Carport	
2010	MI Battalion HQ	Fort Carson	$300	Solar hot water heating	
2010	MI Battalion HQ	Fort Carson	$200	Daylighting	
2010	MI COF	Fort Carson	$120	20 KW PV	
2010	Dining Facility - Warfighter	Fort Carson	$150	Small Wind	
2010	UAS BN Hqds	Fort Huachuca	$5,770	Solar Thermal	
2010	Commissary	URLAS		Solar PV	Solar
2010	AAFES PX	URLAS		Solar Thermal	Solar
2010	CDC's	Illesheim/Katterbach		Solar Thermal	Solar
2010	Consolidated Vehicle Maintenance Shop	Humphreys	$19	Thermal Solar, Daylighting	EnergyStar
2010	Vehicle Maintenance Facility	Humphreys	$18	Thermal Solar, Daylighting	EnergyStar
2010	Fire Stations	Humphreys	$13	Thermal Solar, Daylighting	EnergyStar
2010	Ballistics Evaluation Facility PHII (35% design)	Picatinny Arsenal	$10,200	LEED Silver	
2010	Analytical Chem lab phase II (currently under design)	Edgewood Arsenal	$15,500	LEED Silver	
2010	Centralized Demil Processing Center	McAlester AAP	$11,779	LEED Silver	
2010	Motor Pool - Shell	Fort Rucker	$870	LEED Silver	
2010	WAATS BRAC (GTA)	SILVER BELL AHP	$450,000	Solar PV	SOLAR

II. Army					
Fiscal Year	Project	Location	Project Value ($000)	Renewable Type	Roof Attribute
2010	Readiness Center	Fort Lupton, CO	$13,000	GSHP	
2010	Readiness Center	Colorado Springs, CO	$19,000	GSHP	
2010	Army Aviation Support Facility		$28,000	Photovoltaic Solar and Geothermal	Cool Roof
2010	Readiness Center Phase V	Barrigada	$10,000	Daylighting	
2010	B1898 Roof Replacement & PV system	Building 1898, Kalaeloa, HI	$884	Solar PV	Solar
2010	Armory & Maintenance Facility	Cedar Rapids	$37,800	GSHP/Daylighting	
2010	Armory	Muscatine	$8,000		
2010	Armory	Middletown	$24,800	GSHP	Cool
2010	CACTF	Orchard, ID	$6,000	Solar PV	Solar
2010	Mt Vernon RC	Mt Vernon, IL	$0	Geothermal	
2010	Owensboro Readiness Center	Owensboro, Kentucky	$14,000	Daylighting	Cool Metal
2010	TUAS	Fort Polk LA	$5,000		
2010	BRAC	Baton Rouge	$47,000	Solar PV	
2010	Regional Tng Institute PH2	Bangor, Maine	$15,500	Geothermal	
2010	Mead Titan Readiness	Mead Nebraska	$9,100	GSHP	
2010	Grand Island Readiness	Grand Island Nebraska	$22,000	GSHP	
2010	Barracks 390257	Camp Perry	$1,700	CFL, SEER 13 HVAC, on demand hot water, 100% complete LEED Silver	
2010	Barracks 390264	Ravenna	$2,000	CFL, SEER 13 HVAC	
2010		Ontario armory		Geothermal	
2010		Ontario armory	Yes	Solar PV	
2010	Area 5 Green Bldg	PA-FTIG		Geothermal	Cool
2011	MOUT Collective Training Facility	A.P. Hill	$65,000	GSHP	Cool
2011	Indoor Range	A.P. Hill	$6,600	GSHP	Cool
2011	Gen. Admin. Bldg.	Presidio of Monterey		Solar PV	Solar
2011	Barracks	Presidio of Monterey		Solar PV	Solar
2011	Gen. Instruct. Bldg	Presidio of Monterey		Solar PV	Solar
2011	Addition/Alteration Health Clinic	Grafenwoehr Rose Barracks	$34,000	Solar Thermal, Solar PV	
2011	Barracks 785	Grafenwoehr Main Post	$17,500	Solar Thermal	
2011	Barracks 790	Grafenwoehr Main Post	$17,000	Solar Thermal	
2011	Barracks 404	Grafenwoehr Rose Barracks	$20,000	Solar Thermal	
2011	Barracks 405	Grafenwoehr Rose Barracks	$18,500	Solar Thermal	
2011	AVIM Hangar AH-64 Phase I & II	Fort Rucker	$42,000	LEED Silver	
2011	Aircraft Component Maint Shop (Backshop)	Fort Rucker	$31,000	LEED Silver	
2011	Regional Logistics Support Complex, Phase 1 Maintenance	JBLM	$63,000	LEED Silver	

II. Army					
Fiscal Year	Project	Location	Project Value ($000)	Renewable Type	Roof Attribute
2011	Regional Logistics Support Complex, Phase 2 Warehouse,	JBLM	$16,500	LEED Silver	
2011	Blade Shop addition	CCAD	$1,320	daylighting	
2012	Chapel Netzaberg	Grafenwoehr Netzaberg	$10,200		
2012	Barracks 408	Grafenwoehr Rose Barracks	$15,000		
2012	DCRF	CCAD	$32,000	daylighting	
2014	Consolidated Shipping Center	Blue Grass AD	$13,135	LEED Silver	
2017	Consolidated Fire, Safety, and Security Center	Carlisle Barracks	$18,655	Solar PV, Daylighting	Cool, Green
2017	US Army War College Educational Facility	Carlisle Barracks	$200,000	Daylighting	Cool, Green
2017	Army Heritage Center Facility	Carlisle Barracks	$29,000	Solar PV, Daylighting	Cool, Green
2017	DPW Replacement Facility	Carlisle Barracks	$13,800	Geothermal, GSHP, Solar PV, Daylighting	Cool, Green

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APPENDIX G
MILITARY CONSTRUCTION PROJECTS

Department of Defense

List of New Federal Building Designs and Construction FY 2010

(Note: Only new buildings which began the design phase after the beginning of FY 2007 need to be listed. Buildings for which construction was completed in FY 2007 and after do not need to be listed if they were designed prior to FY 2007.)

New Construction Project Information			Design	Completed New Construction			
Project ID	Building Name	Location (City, State)	Design Started (FY)	Percentage below ANSI/ASHRAE/IESNA Standard 90.1--2004 in terms of energy use	If not at least 30% below ANSI/ASHRAE/IESNA Standard 90.1--2004, will design achieve maximum level of energy efficiency that is life-cycle cost-effective?	Date Construction Completed (FY)	In terms of energy use, percentage below ANSI/ASHRAE/IESNA Standard 90.1--2004 achieved
Air Force							
AJJY099016	DRBS Storage Facility	AGANA,GU	2010	0.30%		2012	TBD
WEFM089029	Upgrade ASOS Facilities	ALBEMARLE, NC	2009	0.31%		TBD	TBD
TDVG029066	Replace Troop Quarters	ALPENA, MI	2006	0.36%		2010	TBD
AGGN063002	C-17 Sheet Metal/ Composite Shop	ALTUS, Altus City, OK	2007	0.30%		2012	TBD
AGGN033005	CONSOL DIGITAL AIRPORT SURVEILL RADAR/RAPCON FAC	ALTUS, Altus City, OK	2009	0.30%		2012	TBD
SAKW335780	Combat Communications Maintenance Facility	ANDERSEN AIR FORCE BASE, Yigo, Guam	2007	0.30%		2012	TBD
SAKW059099	NW Field Technical Training Facility	ANDERSEN AIR FORCE BASE, Yigo, Guam	2007	0.30%		2012	TBD
SAKW059100	NW Field Combat Support Vehicle Maint Facility	ANDERSEN AIR FORCE BASE, Yigo, Guam	2010	0.30%		2012	TBD
SAKW053006	NW FIELD COMMANDO WARRIOR OPERATIONS FACILITY	ANDERSEN AIR FORCE BASE, Yigo, Guam	2010	0.32%		2011	TBD
AJXF088000	Ambulatory Care Center	ANDREWS, Camp Spring, MD	2010	0.18%	Yes	2010	TBD
AJXF103003	BRAC - Administration Facility	ANDREWS, Camp Spring, MD	2007	0.30%		2011	TBD
AJXF059145	BRAC - HQ & Readiness Center	ANDREWS, Camp Spring, MD	2006	0.30%		2010	TBD

New Construction Project Information			Design	Completed New Construction			
Project ID	Building Name	Location (City, State)	Design Started (FY)	Percentage below ANSI/ASHRAE/IESNA Standard 90.1--2004 in terms of energy use	If not at least 30% below ANSI/ASHRAE/ IESNA Standard 90.1--2004, will design achieve maximum level of energy efficiency that is life-cycle cost-effective?	Date Construction Completed (FY)	In terms of energy use, percentage below ANSI/ASHRAE/IESNA Standard 90.1--2004 achieved
Air Force							
AJXF103002	NCR Relocation - Administration Facility	ANDREWS, Camp Spring, MD	2007	0.30%		2011	TBD
AJXF103004	Administration Facility Addition	ANDREWS, Camp Spring, MD	2008	0.30%		2011	TBD
AJXF071502	BRAC - CONSTRUCT POV LANE, PEARL HARBOR GATE.	ANDREWS, Camp Spring, MD	2009	0.30%		2010	TBD
AJXF063009	CONSTRUCT NEW MUNITIONS STORAGE AREA (MSA) (TFI)	ANDREWS, Camp Spring, MD	2009	0.30%		2012	TBD
AJXF049104	Replace Munitions Complex	ANDREWS, Camp Spring, MD	2008	0.31%		2011	TBD
AJXF088001	Dental Clinic	ANDREWS, Camp Spring, MD	2009	0.24%	Yes	2010	TBD
AQRC069153	TFI-ASOS Beddown	ATLANTIC CITY, NJ	2008	0.30%		2010	TBD
AQRC059017	Munitions Admin Fac	ATLANTIC CITY, NJ	2006	0.47%		2011	TBD
AQRC039059	Ops and Training Facility	ATLANTIC CITY, NJ	2004	0.77%		2011	TBD
CRWU019119	ADAL Weapon Release Facility	AURORA, CO	2008	0.37%		2011	TBD
CRWU029003	Alert Crew Headquarters	AURORA, CO	1905	0.38%		2011	TBD
ASHE083011	Air Support Operationns Squadron	AVIANO AB, Pordenone, Italy	2010	0.28%	Yes	2013	TBD
PJMS909928	Replace Operations and Medical Training Facility	BALTIMORE, MD	2009	0.48%		TBD	TBD
FKNN089019	Replace Hangar/Shops	BANGOR, ME	2008	0.43%		2011	TBD
AWUB985501	SECURITY FORCES COMPLEX	BARKSDALE AFB, Bossier City, LA	2009	0.28%	Yes	2011	TBD

New Construction Project Information			Design	Completed New Construction			
Project ID	Building Name	Location (City, State)	Design Started (FY)	Percentage below ANSI/ASHRAE/IESNA Standard 90.1--2004 in terms of energy use	If not at least 30% below ANSI/ASHRAE/IESNA Standard 90.1--2004, will design achieve maximum level of energy efficiency that is life-cycle cost-effective?	Date Construction Completed (FY)	In terms of energy use, percentage below ANSI/ASHRAE/IESNA Standard 90.1--2004 achieved
Air Force							
AWUB086000	SECURITY FORCES MILITARY WORKING DOG KENNEL	BARKSDALE AFB, Bossier City, LA	2009	0.30%		2011	TBD
AWUB025502	Weapons Load Crew Training Facility	BARKSDALE AFB, Bossier City, LA	2010	0.30%		2012	TBD
AXQD059345	BRAC - EOD Facility	BARNES, MA	2006	0.32%		2011	TBD
MBMV079055	TFI - cNAF Beddown - Upgrade Building 6923	Battle Creek, MI	2008	0.39%		2012	TBD
BAEY041006R1	Child Development Center	BEALE, Marysville, CA	2009	0.26%	Yes		TBD
BRKR059015	Mobility Processing Center	BIRMINGHAM, AL	2006	0.42%		2010	TBD
BRKR029059	KC-135 Alert Crew Quarters	BIRMINGHAM, AL	2009	0.30%		2011	TBD
CEKT069119	TFI - Upgrade Engine Shop	BRADLEY, CT	2007	0.58%		2011	TBD
CRWU048002	Pharmacy	BUCKLEY, Denver, CO	2007	0.30%		2010	TBD
CRWU073006	YOUTH CENTER	BUCKLEY, Denver, CO	2007	0.30%		2012	TBD
CURZ069220	Security Frces/Comm Fac	BURLINGTON, VT	2007	0.52%			TBD
CURZ029000	ADAL Fire Crash/Rescue Station	BURLINGTON, VT	2007	0.53%		2011	TBD
CYRB093570	BRAC - BULLIS Medical Field Training Complex	CAMP BULLIS, San Antonio, TX	2007	0.30%		2010	TBD
CZQZ093002	ADAL Child Development Center	CANNON, Clovis, NM	2007	0.30%		2011	TBD
CZQZ063002	CONSOLIDATED COMMUNICATIONS FACILITY	CANNON, Clovis, NM	2008	0.30%		2011	TBD

New Construction Project Information			Design	Completed New Construction			
Project ID	Building Name	Location (City, State)	Design Started (FY)	Percentage below ANSI/ASHRAE/IESNA Standard 90.1--2004 in terms of energy use	If not at least 30% below ANSI/ASHRAE/IESNA Standard 90.1--2004, will design achieve maximum level of energy efficiency that is life-cycle cost-effective?	Date Construction Completed (FY)	In terms of energy use, percentage below ANSI/ASHRAE/IESNA Standard 90.1--2004 achieved
Air Force							
CZQZ103001	Child Development Center	CANNON, Clovis, NM	2009	0.30%		2011	TBD
DBEH923101A	SATELLITE OPERATIONS SUPPORT FACILITY	CAPE CANAVERAL AS, Cape Canaveral, FL	2009	0.31%			TBD
DDPM972002	Add to and Alter Avionics/ECM Shop	CARSWELL,TX	2009	0.30%		2012	TBD
DDPM009116	Security Forces Training Facility	CARSWELL,TX	2008	0.37%		2011	TBD
DKFX093008	C-17 Flight Simulator Addition	CHARLESTON, Charleston, SC	2008	0.30%		2010	TBD
DKFX963008	Child Development Center	CHARLESTON, Charleston, SC	2008	0.30%		2011	TBD
FJRP089051	PRIME BEEF "S Teams" Beddown	CHARLOTTE,NC	2008	0.30%		2011	TBD
FJRP049130	Replace Fire Crash Rescue Station	CHARLOTTE,NC	2008	0.48%		2010	TBD
DPEZ019148	TFI - C 130 Squad Ops	CHEYENNE, WY	2004	0.68%		2011	TBD
DPEZ0591381	BRAC - Add to Squad Ops - Active Duty Associate	CHEYENNE, WY	2006	0.68%		2011	TBD
DPEZ019148A	Add to Squadron Operations	CHEYENNE,WY	2009	0.30%			TBD
DXEB043001	POWER PLANT FACILITY	CLEAR AIR STATION, Denali Borough, AK	2009	0.30%		2012	TBD
EEPZ053002	Child Development Center	COLUMBUS, Columbus, MS	2007	0.22%	Yes	2012	TBD
LKTC093107	UAS 432 Wing HQ Mission Support Facility	CREECH, Indian Springs, NV	2007	0.28%	Yes	2011	TBD

New Construction Project Information			Design	Completed New Construction			
Project ID	Building Name	Location (City, State)	Design Started (FY)	Percentage below ANSI/ASHRAE/IESNA Standard 90.1--2004 in terms of energy use	If not at least 30% below ANSI/ASHRAE/IESNA Standard 90.1--2004, will design achieve maximum level of energy efficiency that is life-cycle cost-effective?	Date Construction Completed (FY)	In terms of energy use, percentage below ANSI/ASHRAE/IESNA Standard 90.1--2004 achieved
Air Force							
LKTC093103	UAS Dining Hall	CREECH, Indian Springs, NV	2008	0.28%	Yes	2011	TBD
LKTC093106	UAS Flight Simulator and Academics Facility	CREECH, Indian Springs, NV	2008	0.28%	Yes	2011	TBD
LKTC093101	UAS Operations Facility	CREECH, Indian Springs, NV	2008	0.28%	Yes	2011	TBD
LKTC113102	UAS Airfield Fire/Crash Rescue Station	CREECH, Indian Springs, NV	2010	0.30%			TBD
FBNV069124	TFI-Predator Beddown-FOC	DAVIS, AZ	2006	0.31%		2011	TBD
FBNV103003	CSAR HC-130J Infrastructure	DAVIS-MONTHAN, Tucson, AZ	2009	0.30%		2011	TBD
FBNV073004	Dormitory (144 RM)	DAVIS-MONTHAN, Tucson, AZ	2009	0.30%			TBD
FBNV963007	FIRE/CRASH RESCUE STATION	DAVIS-MONTHAN, Tucson, AZ	2009	0.30%			TBD
FBNV103001	HC-130J Simulator Facility	DAVIS-MONTHAN, Tucson, AZ	2009	0.30%			TBD
FBNV103002	HC-130J Squadron Operations Facility	DAVIS-MONTHAN, Tucson, AZ	2009	0.30%			TBD
FBNV113007	HC-130J AGE Maintenance Facility	DAVIS-MONTHAN, Tucson, AZ	2010	0.32%			TBD
FBNV113002	HC-130J Aerial Delivery Facility	DAVIS-MONTHAN, Tucson, AZ	2010	0.35%			TBD
FBNV113005	HC-130J Parts Store	DAVIS-MONTHAN, Tucson, AZ	2010	0.35%			TBD
FFAN029023	Add to and Alter Security Forces Facility	DES MOINES, IA	1905	0.30%		2011	TBD
FGWB079002	Construct New GCA Center	DOBBINS, Atlanta, GA	2007	0.20%	Yes		TBD

New Construction Project Information			Design	Completed New Construction			
Project ID	Building Name	Location (City, State)	Design Started (FY)	Percentage below ANSI/ASHRAE/IESNA Standard 90.1--2004 in terms of energy use	If not at least 30% below ANSI/ASHRAE/IESNA Standard 90.1--2004, will design achieve maximum level of energy efficiency that is life-cycle cost-effective?	Date Construction Completed (FY)	In terms of energy use, percentage below ANSI/ASHRAE/IESNA Standard 90.1--2004 achieved
Air Force							
FGWB079001	Construct New Control Tower	DOBBINS, Atlanta, GA	2009	0.30%			TBD
FJXT033003	CONSOLIDATED COMMUNICATIONS FACILITY	DOVER, Dover, DE	2008	0.30%			TBD
FJXT993002	Fitness Center	DOVER, Dover, DE	2008	0.30%			TBD
FJXT103003	C-5 CARGO AIRCRAFT MAINTENANCE TRAINING FACILITY, PH 1	DOVER, Dover, DE	2009	0.30%			TBD
FJXT093000A	Chapel Center	DOVER, Dover, DE	2010	0.30%			TBD
FJXT113001	C-17 Cargo MTF Phase 2	DOVER, Dover, DE	2010	0.30%			TBD
FMKM059001	Replace Fuel Cell Hangar	DULUTH, MN	2008	0.34%		2010	TBD
FNWZ053007	C-130 MULTIPURPOSE MAINTENANCE HANGAR	DYESS AIR FORCE BASE, Abilene, TX	2008	0.30%		2011	TBD
FNWZ100006	C-130J ALTER HANGAR	DYESS AIR FORCE BASE, Abilene, TX	2009	0.30%		2011	TBD
FSPM053503A	Fire Station	EDWARDS, Lancaster, CA	2009	0.30%		2012	TBD
FTFA095001	AAFES Mall @ 7th	EGLIN, Crestview, FL	2010	0.30%		2012	26.5
FTFA093926	BRAC - EGLIN ADD/ ALT TMO CARGO PROCESSING	EGLIN, Valporiso, FL	2010	0.10%	Yes	2011	TBD
FTFA093933	BRAC - ADD/ALTER SECURITY FORCES FACILITY	EGLIN, Valporiso, FL	2010	0.14%	Yes	2011	TBD
FTFA093918	BRAC - EGLIN ADD/ALT SCHOOL AGE FACILITY	EGLIN, Valporiso, FL	2010	0.25%	Yes	2011	TBD

New Construction Project Information			Design	Completed New Construction			
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Air Force							
FTFA093910	BRAC - EGLIN MCP NEW FITNESS CENTER	EGLIN, Valporiso, FL	2010	0.25%	Yes	2011	TBD
FTFA061726	F-35 POL OPS FACILITY	EGLIN, Valporiso, FL	2009	0.25%	Yes	2010	TBD
FTFA083941	BRAC - Dental Clinic Replacement	EGLIN, Valporiso, FL	2008	0.28%	Yes	2011	TBD
FTFA073006	Add FIRE STATION 1	EGLIN, Valporiso, FL	2007	0.30%		2011	TBD
FTFA053023	Advanced Warheads Research Center	EGLIN, Valporiso, FL	2008	0.30%		2011	TBD
FTFA083953	BRAC - JSF Marine Corps/Navy Hangar (3548)	EGLIN, Valporiso, FL	2008	0.30%		2012	TBD
FTFA073901	BRAC - MC CNST JSF Munitions MX Phase I	EGLIN, Valporiso, FL	2008	0.30%		2012	TBD
FTFA083951	F-35 Student Dormitory	EGLIN, Valporiso, FL	2008	0.30%		2012	TBD
FTFA073915	BRAC - F-35 (JSF) Renovate Maintenance Dock B1318	EGLIN, Valporiso, FL	2008	0.30%		2012	TBD
FTFA073916	BRAC - F-35 (JSF) Renovate Maintenance Dock B1344(3797)	EGLIN, Valporiso, FL	2008	0.30%		2012	TBD
FTFA073914	BRAC - F-35 (JSF) Renovate Warehouse B1404 (3798)	EGLIN, Valporiso, FL	2008	0.30%		2011	TBD
P925	BEQ, EOD School Phase 2	EGLIN, Valporiso, FL	2009	0.30%		2013	TBD
FTFA093929	BRAC - CONSTRUCT NEW CIVIL ENGINEER FACILITY	EGLIN, Valporiso, FL	2010	0.30%		2011	TBD
FTFA053025	DORMITORY (96 RM)	EGLIN, Valporiso, FL	2010	0.30%		2011	TBD

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Air Force							
FTFA073908	F-35 Fuel Cell Maint Hangar	EGLIN, Valporiso, FL	2010	0.30%			TBD
FTFA093005	BEQ, EOD School Phase II (Dorm)	EGLIN, Valporiso, FL	2011	0.30%		2011	TBD
P927	Applied Instruction Facility, EOD Course	EGLIN, Valporiso, FL	2008	0.30%		2013	TDB
FTFA083952	F-35 Squadron Operations/AMU/Hangar	EGLIN, Valporiso, FL	2007	0.34%		2011	TBD
FTFA913008	Child Development Center	EGLIN, Valporiso, FL	2008	0.35%		2011	TBD
FTFA093916	BRAC - Eglin MCP Child Development Center	EGLIN, Valporiso, FL	2009	0.35%		2011	TBD
FTFA093953	BRAC - JSF F-35 Tech Training Dining Facility	EGLIN, Valporiso, FL	2008	0.38%		2011	TBD
FTFA083950	BRAC - F-35 Integrated TRNG Center Academics BLG	EGLIN, Valporiso, FL	2007	0.39%		2011	TBD
FTFA053019	F-35 DUKE CONTROL TOWER	EGLIN, Valporiso, FL	2009	0.54%		2011	TBD
FAFA093916	BRAC Eglin MCP Child Development Center	EGLIN, Valporiso, FL	2010	0.35%			TBD
FTQW094001	REPLACE MILITARY FAMILY HOUSING - PHASE 4 (CURRENT MISSION)	EIELSON AIR FORCE BASE, Fairbanks, AK	2009	0.50%		2011	TBD
FTQW044804C	Construct 54 New MFHUs	EIELSON AIR FORCE BASE, Fairbanks, AK	2009	0.50%		2012	TBD
FTQW054801	Replace 129 MFHU	EIELSON AIR FORCE BASE, Fairbanks, AK	2009	0.50%		2011	TBD
FTQW044800	Construct 90 New MFHUs	EIELSON AIR FORCE BASE, Fairbanks, AK	2010	0.50%		2013	TBD

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Air Force							
FWJH059084	BRAC-Relocate 272 EIS SQ	ELLINGTON, TX	2008	0.20%	Yes	2011	TBD
FWJH059032	Replace Crash Fire Station	ELLINGTON, TX	2007	0.30%		2010	TBD
FWJH069194	TFI - Alter UAV Hangar	ELLINGTON, TX	2008	0.30%		TBD	TBD
FWJH069154	TFI - ASOS Beddown	ELLINGTON, TX	2006	0.30%		2010	TBD
FXBM073004	BASE ENTRY AND PERIMETER GATES	ELLSWORTH, Box Elder, SD	2009	0.30%		2011	TBD
FXBM003007	Base Engineer Admin Facility	ELLSWORTH, Box Elder, SD	2008	0.31%		2010	TBD
FXSB096001	Level 1 Confinement Facility	Elmendorf AFB, Anchorage, AK	2010	0.30%		2011	TBD
FXSB073010	F-22 Flight Simulator	ELMENDORF, Anchorage, AK	2007	0.14%	Yes	2011	TBD
FXSB073015	F-22 Field Training Detachment	ELMENDORF, Anchorage, AK	2007	0.18%	Yes	2011	TBD
FXSB073008B	F-22 Corrosion Control / LO MX / Composite RPR F	ELMENDORF, Anchorage, AK	2007	0.30%		2012	TBD
FXSB073020	F-22 Squad Operations / AMU / 6-Bay Hangar	ELMENDORF, Anchorage, AK	2007	0.30%		2012	TBD
FXSB103009	RED FLAG ALASKA ADD ALTER OPERATIONS CENTER	ELMENDORF, Anchorage, AK	2007	0.30%		2011	TBD
FXSB073022	F-22 WEAPONS LOAD TRAINING FACILITY	ELMENDORF, Anchorage, AK	2008	0.30%		2011	TBD
FXSB073013	F-22 Aerospace Ground Equipment Shop	ELMENDORF, Anchorage, AK	2008	0.30%		2010	TBD
FXSB093022	BRAC-Fuel Cell/ Corrosion Ctl	ELMENDORF, Anchorage, AK	2007	0.32%		2011	TBD

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Air Force							
FXSB093029	BRAC- ADAL for Sq Ops and AMU	ELMENDORF, Anchorage, AK	2007	0.35%		2011	TBD
FXSB073027	F-22 7-Bay Aircraft Shelter	ELMENDORF, Anchorage, AK	2007	0.40%		2011	TBD
FXSB093016	BRAC-Acft Support Eq Shop	ELMENDORF, Anchorage, AK	2007	0.40%		2010	TBD
FXSB069018	BRAC-Ops and Training Fac	ELMENDORF, Anchorage, AK	2007	0.44%		2010	TBD
FXSB093017	BRAC-Training Fire Station	ELMENDORF, Anchorage, AK	2007	0.46%		2010	TBD
FXSB069100	BRAC-Medical Training Facility	ELMENDORF, Anchorage, AK	2007	0.50%		2010	TBD
FXSBO73012	F-22 Add/Alter Renov WRS Shop	ELMENDORF, Anchorage, AK	2010	0.24%	Yes	2013	TBD
GJKZ880015	Physiological Training Facility	FAIRCHILD, Spokane, WA	2008	0.40%		2010	TBD
GJKZ030005	FITNESS CENTER	FAIRCHILD, Spokane, WA	2009	0.45%		2012	TBD
GJKZ06-0074	Refueling Vehicle Maintenance Facility	FAIRCHILD, Spokane, WA	2010	0.30%		2012	TBD
GJKZ92-0012P1	SERE Force Support Complex, Phase-1	FAIRCHILD, Spokane, WA	2010	0.30%		2012	TBD
SPBN019136	Replace Ops and Training /ADAL DGS	FALMOUTH, MA	2009	0.35%		2011	TBD
SPBN019136	Replace Ops and Training /ADAL DGS	FALMOUTH, MA	2008	0.48%		2012	TBD
KKGA029115	Fire Crash and Rescue Station	FARGO, ND	1905	0.35%		2011	TBD
HFHA069130	TFI-Predator LRE Beddown	FORT HUA, AZ	2008	0.30%		TBD	TBD

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Air Force							
LKLW959714	Replace Troop Training Qtrs	FORT IND, PA	2008	0.52%		2010	TBD
MPLS083561	BRAC – FSH METC Dining Facilities (2 @ 2400 PN), INCR 1	FORT SAM HOUSTON, San Antonio, TX	2007	0.30%		2010	TBD
MPLS103567	BRAC – FSH METC Physical Fitness Center	FORT SAM HOUSTON, San Antonio, TX	2007	0.30%		2011	TBD
MPLS083562	BRAC – FSH METC Student Dorm 1 (1200PN)	FORT SAM HOUSTON, San Antonio, TX	2007	0.30%		2010	TBD
MPLS083563	BRAC – FSH METC Student Dorm 2 (1200PN)	FORT SAM HOUSTON, San Antonio, TX	2007	0.30%		2010	TBD
MPLS083560A	BRAC – FSH METC Medical Instruction Facilities (INCR 1)	FORT SAM HOUSTON, San Antonio, TX	2008	0.30%		2011	TBD
MPLS083560B	BRAC – FSH METC Medical Instruction Facilities (INCR 2)	FORT SAM HOUSTON, San Antonio, TX	2008	0.30%		2011	TBD
MPLS083560C	BRAC – FSH METC MEDICAL INSTRUCTION FACILITIES (INCR 3)	FORT SAM HOUSTON, San Antonio, TX	2008	0.30%		2011	TBD
MPLS093564	BRAC – FSH METC Student Dorm 3 (1200PN)	FORT SAM HOUSTON, San Antonio, TX	2008	0.30%		2011	TBD
CNBC083002	BRAC – TRI-Service Research Facility	FORT SAM HOUSTON, San Antonio, TX	2008	0.30%		2012	TBD
MPLS107520A	BRAC-502 ABW BOS ADMINISTRATION FACILITY	FORT SAM HOUSTON, San Antonio, TX	2009	0.30%		2011	TBD

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Air Force							
MPLS093540	BRAC-CONVERT/ RENOVATE OPEN DINING FACILITY (B1395) TO COMMUN	FORT SAM HOUSTON, San Antonio, TX	2009	0.30%		2011	TBD
MPLS107520	BRAC-JOINT BASE SAN ANTONIO HEADQUARTERS FACILITY	FORT SAM HOUSTON, San Antonio, TX	2009	0.30%		2011	TBD
HKRZ069001	BRAC – A-10 Fuel Cell/ Corr Ctl	FORT SMITH, AR	2007	0.30%		2009	TBD
ATQZ049049	Acft Shelters/fuel stands	FORT WAYNE, IN	2008	0.30%		2011	TBD
ATQZ099062	A-10 Flight Simulator Addition	FORT WAYNE, IN	2010	0.30%		TBD	TBD
ATQZ109537	A10 Conversion Add and Alter Aircraft Shops Bldg 734	FORT WAYNE,IN	2010	0.30%		TBD	TBD
DDPM009116	Security Forces Facility	FORT WORTH, TX	2004	0.37%		2011	TBD
GHLN053034	BRAC Construct Overwatch ESF/GOV/ POV Ck, Canopy and GH	FRANCIS E WARREN, Cheyenne, WY	2007	0.28%	Yes	2010	TBD
GHLN053010	ADAL Missile Service Complex	FRANCIS E WARREN, Cheyenne, WY	2009	0.32%		2012	TBD
GHLN063010	Renovate Historic Dormitory	FRANCIS E WARREN, Cheyenne, WY	2007	0.43%		2011	TBD
HAYW049133	Replace Squadron Operations Facility	FRESNO,CA	2009	0.31%		2011	TBD
HKRZ889688	Replace Civil Engineer Complex	FT SMITH, AR	2009	0.34%		2011	TBD
JCGU043002	Consolidated Learning Center	GOODFELLOW, San Angelo, TX	2010	0.30%		2011	TBD

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Air Force							
JCGU053000	JOINT INTEL TECHNICAL TRAINING FACILITY PHASE 1 (TFI)	GOODFELLOW, San Angelo, TX	2008	0.31%		2011	TBD
JCGU083001	STUDENT DORMITORY (100 RM)	GOODFELLOW, San Angelo, TX	2009	0.32%		2011	TBD
JCGU043001	ADAL Fitness Center	GOODFELLOW, San Angelo, TX	2008	0.40%			TBD
JCGU093002	STUDENT DORMITORY (200 RM)	GOODFELLOW, San Angelo, TX	2009	0.52%		2011	TBD
JFSD200501	FIRE STATION	GRAND FORKS, Grand Forks, ND	2010	0.30%		2011	TBD
JFSD200502	Control Tower/Rapcon	GRAND FORKS, Grand Forks, ND	2009	0.42%		2011	TBD
CTCB989001P2	CONTROL TOWER	Grissom, IN	2009	0.30%			TBD
HAAW069167	TFI-Reaper IOC/FOC	HANCOCK, NY	2008	0.29%	Yes	2009	TBD
MXRD013000	Construct Acquisition Mgt Facility, Phase I	HANSCOM, Bedford, MA	2008	0.30%		2010	TBD
MXRD093000	MENTAL HEALTH CLINIC ADDITION	HANSCOM, Bedford, MA	2009	0.30%		2012	TBD
KNMD059350	BRAC-Flight Simulator Facility	HICKAM, HI	2006	0.34%		2011	TBD
KNMD069209	TFI -F-22 Hangar/Sq Ops /AMU	HICKAM, HI	2008	0.39%		2011	TBD
KNMD069208	TFI- F-22 LO/Composite Rep Fac	HICKAM, HI	2007	0.60%		2010	TBD
KRSM083008	BRAC - Alter BLDG. 295 for BRAC Engine CIRF	HILL, Ogden, UT	2007	0.30%		2012	TBD
KRSM043029	F-22 Heavy Maintenance Facility and Composite Back Shop	HILL, Ogden, UT	2007	0.30%		2011	TBD

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Air Force							
KRSM070070	BRAC - Renovate LANTIRN CIRF, Building 584 & 578	HILL, Ogden, UT	2008	0.30%		2011	TBD
KRSM073011	Hydraulic Flight Control Facility	HILL, Ogden, UT	2008	0.30%		2010	TBD
KRSM083003	Child Development Center	HILL, Ogden, UT	2009	0.30%		2011	TBD
KRSM043013	Munition Maintenance Facility	HILL, Ogden, UT	2009	0.30%		2011	TBD
KRSM093002	THREE-BAY FIRE STATION	HILL, Ogden, UT	2009	0.30%		2011	TBD
KRSM043003	F-22 Radar Cross Section Testing Fac	HILL, Ogden, UT	2010	0.30%			TBD
KRSM113017	F-35 Flight Simulator	HILL, Ogden, UT	2011	0.30%			TBD
KWRD083002	F-22 Alter Hangar Bay for LO/Composite Repair Facility	HOLLOMAN, Alamogordo, NM	2008	0.05%	Yes	2011	TBD
KWRD093003	F-22 Add/Alter Jet Engine Maintenance Shop	HOLLOMAN, Alamogordo, NM	2007	0.30%		2011	TBD
KWRD963003	F-22 Aerospace Ground Equipment (AGE) Facility	HOLLOMAN, Alamogordo, NM	2008	0.30%		2011	TBD
KWRD093005	F-22 Add/Alter Flight Simulator Facility	HOLLOMAN, Alamogordo, NM	2008	0.53%		2011	TBD
KWRD083003	F-22A CONSOLIDATED MUNITIONS MAINTENANCE – TFI	HOLLOMAN, Alamogordo, NM	2009	0.53%		2011	TBD
KYJM049010	COMMUNITY ACTIVITY CENTER/TROOP FEEDING FACILITY	Homestead, Homestead, FL	2010	0.30%			TBD
KNMD069215	TFI – F-22 Upgrade Munitions Complex	HONOLULU (OAHU), HI	2008	0.33%		TBD	TBD

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Air Force							
FWJH079112	Munitions Maintenance Shop	HOUSTON, TX	2008	0.53%		2011	TBD
FTEV023013	ADAL SPECIAL OPERATIONS SCHOOL FACILITY	HURLBURT FIELD, Fort Walton Beach, FL	2010	0.27%	Yes	2012	TBD
FTEV993036	CHILD DEVELOPMENT CENTER	HURLBURT FIELD, Fort Walton Beach, FL	2009	0.30%		2011	TBD
FTEV083017	CHILD DEVELOPMENT CENTER, WEST SIDE	HURLBURT FIELD, Fort Walton Beach, FL	2009	0.30%		2011	TBD
FTEV043000	REFUELING VEHICLE MAINTENANCE FACILITY	HURLBURT FIELD, Fort Walton Beach, FL	2009	0.30%		2011	TBD
LJYC003006	CONSOLIDATED COMMUNITY CENTER (In concept design phase)	INCIRLIK AIR BASE, Adana, Turkey	2009	0.20%	Yes	2011	TBD
LSGA029009A	Security Forces Training Facility	JACKSONVILLE, FL	2008	0.37%		TBD	TBD
LSGA029009	Communicatons Training Facility	JACKSONVILLE, FL	205	0.38%		2010	TBD
LUXC079133	Conventional Munitions Storage	JOE FOSS, SD	2005	0.50%		2010	TBD
LXEZ104126	IMPROVE FAMILY HOUSING, PH 10	KADENA AIR BASE, Okinawa, Japan	2010	0.10%	Yes	2013	TBD
LXEZ094217	IMPROVE FAMILY HOUSING, PH9	KADENA AIR BASE, Okinawa, Japan	2009	0.30%		2014	TBD
MAHG073001	COMMUNITY HOSPITAL ADD'N	KEESLER AIR FORCE BASE, Biloxi, MS	2007	0.06%	Yes	2012	TBD
MAHG043000*	DORMITORY (144 PN)	KEESLER AIR FORCE BASE, Biloxi, MS	2009	0.21%	Yes	2011	TBD

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Air Force							
MAHG033002	INDOOR FIRING RANGE	KEESLER AIR FORCE BASE, Biloxi, MS	2009	0.25%	Yes	2012	TBD
MHMV083112	HC-130 Simulator Facility	KIRTLAND, Albuquerque, NM	2009	0.30%		2011	TBD
MHMV073110	MC-130 Simulator Facility	KIRTLAND, Albuquerque, NM	2009	0.30%		2011	TBD
MHMV053096	BRAC - Kirtland Battlespace Environment Lab	KIRTLAND, Albuquerque, NM	2009	0.31%		2011	TBD
KJAQ029041	Replace Security Forces Facilities	KLAMATH FALLS, OR	2010	0.30%		2012	TBD
PSXE999134	Replace Squadron Operations	KNOXVILLE, TN	2007	0.42%		2009	TBD
MPLS093002	Cns Addition to Child Development Center (CDC) B8210	LACKLAND, San Antonio, TX	2009	0.18%	Yes	2011	TBD
MPLS073510A	BRAC - Headquarters Admin Center	LACKLAND, San Antonio, TX	2009	0.25%	Yes	2010	TBD
MPLS073859	AMBULATORY HEALTH CLINIC PHASE	LACKLAND, San Antonio, TX	2009	0.26%	Yes	2016	TBD
MPLS083115	BRAC ADAL Lak Tech Training AS IAAFA Airfield training	LACKLAND, San Antonio, TX	2008	0.30%		2012	TBD
MPLS043859	CONCOLIDATED DENTAL CLINIC	LACKLAND, San Antonio, TX	2009	0.30%		2012	TBD
MPLS083737R4	Basic Military Training (BMT) Dormitory #4	LACKLAND, San Antonio, TX	2010	0.30%		2014	TBD
MPLS083737S1	BMT SATELLITE CLASSROOMS/DINING FACILITY, No. 1	LACKLAND, San Antonio, TX	2008	0.30%		2012	TBD

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Air Force							
MPLS083737R2	BMT RECRUIT DORMITORY 2, PHASE 2	LACKLAND, San Antonio, TX	2009	0.34%		2012	TBD
MPLS083737R1	BMT Recruit Dormitory	LACKLAND, San Antonio, TX	2007	0.38%		2012	TBD
MPLS083737S2	Basic Military Training (BMT) Satellite Classroom/Dining Facility #2	LACKLAND, San Antonio, TX	2009	0.30%		2013	TBD
MPLS116414JB	One Company Fire Station	LACKLAND, San Antonio, TX	2011	0.30%		2012	TBD
MPLS093737V	Recruit/Family Inprocessing & Information Center	LACKLAND, San Antonio, TX	2011	0.30%		2013	TBD
MPLS083005	Evasion, Conduct After Capture Training Facility	LACKLAND, San Antonio, TX	2008	0.30%		2011	TBD
MPLS083737R	BMT Recruit Dormitory #2	LACKLAND, San Antonio, TX	2009	0.34%		2012	TBD
MPLS083737R3	Basic Military Training (BMT) Recruit Dorm #3	LACKLAND, San Antonio, TX	2009	0.43%		2013	TBD
MQNA093001	IMPROVE FAMILY HOUSING	LAJES FIELD, Azores, Portugal	2008	0.30%		2010	TBD
MSET023002	Large Vehicle Inspection Station	LAKENHEATH, Brandon, UK	2007	0.30%		2012	TBD
MSET963014	F-15C Squad OPS/AMU (493 FS)	LAKENHEATH, Brandon, UK	2008	0.30%		2012	TBD
MSET084028	REPLACE MILITARY FAMILY HOUSING (182 UNITS)	LAKENHEATH, Brandon, UK	2008	0.30%			TBD

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Air Force							
MUHJ053008	WEST AND LASALLE GATE FORCE PROTECTION/ACCESS	LANGLEY AIR FORCE BASE, Hampton, VA	2009	0.30%		2012	TBD
ACC093030	UAS Field Training Unit Operations Complex	LANGLEY, Hampton, VA	2007	0.30%		2012	TBD
ACC093035	UAS Field Training Unit Operations Complex	LANGLEY, Hampton, VA	2007	0.30%		2012	TBD
MUHJ073013	Fuel System Maintenance Dock	LANGLEY, Hampton, VA	2009	0.30%		2012	TBD
ACC083006	Air Support Operations Squadron Complex	LANGLEY, Hampton, VA	2008	0.33%		2010	TBD
ACC093010	Joint Air Ground Center	LANGLEY, Hampton, VA	2008	0.35%			TBD
	Library & Student Activity Center	LAUGHLIN, Del Rio, TX	2008	0.33%			TBD
MXDP073000	Consolidated Student Activity Center/Library	LAUGHLIN, Del Rio, TX	2007	0.41%		2012	TBD
NGCB019121	ADAL Security Forces/ Comm	LINCOLN, NE	2008	0.30%		2009	TBD
NKAK049051	Replace Engine Shop	LITTLE ROCK, AR	2006	0.35%		2010	TBD
NKAK943002	Education Center Complex	LITTLE ROCK, Jacksonville, AR	2008	0.21%	Yes	2011	TBD
NKAK083009	BRAC - C-130 Maintenance Facility	LITTLE ROCK, Jacksonville, AR	2007	0.30%		2012	TBD
NKAK103003	C130 FLIGHT SIMULATOR ADDITION	LITTLE ROCK, Jacksonville, AR	2008	0.30%		2011	TBD
NKAK113000	SECURITY FORCES OPERATIONS FACILITY	LITTLE ROCK, Jacksonville, AR	2009	0.30%		2012	TBD
NTEA969576	Communications Electronics	LOVELL, TN	2007	0.44%		2011	TBD

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Air Force							
NUEX093000	F-35 Academic Training Center	LUKE, Pheonix, AZ	2010	0.30%		2012	TBD
NUEX093001	F-35 Squadron Ops Facility	LUKE, Pheonix, AZ	2010	0.30%			TBD
NVZR063714	COMBAT TRAINING FACILITY	MACDILL, Tampa, FL	2008	0.18%	Yes	2011	TBD
NVZR063715A	Explosive Ordnance Disposal Facility	MACDILL, Tampa, FL	2008	0.21%	Yes	2010	TBD
NVZR073723	CHILD DEVELOPMENT CENTER	MACDILL, Tampa, FL	2009	0.30%		2011	TBD
NVZR083711	CHILD DEVELOPMENT CENTER	MACDILL, Tampa, FL	2009	0.30%		2011	TBD
NVZR103704R1	SOCCENT COMMANDANT & CULTURAL ENGAGEMENT GROUP FACILITY	MACDILL, Tampa, FL	2009	0.30%		2011	TBD
NVZR033709	Mission Support Facility	MACDILL, Tampa, FL	2010	0.30%			TBD
NVZR923703	SOCCENT Headquarters & Commandant Facilities	MACDILL, Tampa, FL	2007	0.34%		2011	TBD
NVZR053714B	Replace USCENTCOM Headquarters	MACDILL, Tampa, FL	2008	0.37%		2008	TBD
NVZR063708	DORMITORY (120 RM)	MACDILL, Tampa, FL	2008	0.54%		2012	TBD
NZAS013003A	Community Activity Center	MALMSTROM, Great Falls, MT	2008	0.30%		2011	TBD
PBXP069219	TFI-RED HORSE Squadron Beddown	MANSFIELD, OH	2007	0.45%		2011	TBD
PDPG020204	Maintenance Hangar	March ARB, CA	2007	0.30%		2009	30%
PDPG050237	Small Arms Firing Range	March, Moreno Valley, CA	2010	0.30%			TBD

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Air Force							
PJMS959554	Replace Fire Station	MARTIN STATE, MD	2006	0.38%		2011	TBD
PNQS099362	ASBC CATM Training Facility	MAXWELL, Montgomery, AL	2009	0.28%	Yes	2011	TBD
PQWY103000	C-17 ADAL Flight Simulator	MCCHORD, Tacoma, WA	2008	0.33%		2011	TBD
PQWY059045	262 IWAS Facility	MCCHORD, WA	2006	0.25%	Yes	2011	TBD
PRQE059126	BRAC - STAMP Relocation	MCCONNEL, KS	2006	0.30%		2010	TBD
PRQE059348	BRAC - STRAPP Relocation	MCCONNEL, KS	2007	0.30%		2010	TBD
PRQE075110P1	MXG Consolidation and Forward Logistics Ph1	MCCONNELL, Wichita, KS	2008	0.30%		2010	TBD
PRQE075110P2	MXG CONSOLIDATION AND FORWARD LOGISTICS CENTER PH 2	MCCONNELL, Wichita, KS	2009	0.30%		2011	TBD
PTFL083004	USAF EC JIEDDO Training Facility	MCGUIRE, Cookstown, NJ	2008	0.30%		2011	TBD
PTFL073003P1	SECURITY FORCES OPERATIONS FACILITY PH 1	MCGUIRE, Cookstown, NJ	2009	0.30%		2011	TBD
PYKL009136	BCE Facilities	MEMPHIS, TN	2008	0.64%		2011	TBD
MWHL080003	Add/Alter Operations & Technical Facility	MENWITH HILL, Harrogate, UK	2008	0.30%		2012	TBD
HTUV059003	Sec Forces CATM/CATS	MILWAUKEE, WI	2008	0.47%		2010	TBD
QJKL089207	Alter STARBASE Facility	MINNEAPOLIS, MN	2009	0.30%		2011	TBD
QJVF962007R2	Missile Procedures Training Operations Facility	MINOT, Minot, ND	2009	0.30%		2011	TBD

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Air Force							
QJVF102002	MHU-196 Munitions Trailer Storage Facility	MINOT, Minot, ND	2010	0.32%		2011	TBD
QJVF072003	DORMITORY (168 RM)	MINOT, Minot, ND	2009	0.35%		2011	TBD
QJVF082003	FY10 Dormitory (168 Rm)	MINOT, Minot, ND	2010	0.30%		2012	TBD
FAKZ959574	Fuel Cell and Corrosion Control Hangar	MONTGOMERY, AL	2006	0.46%		2012	TBD
QSEU093016	BRAC - TF-34 Engine Shop (A 10 BD)	MOODY, Valdosta, GA	2007	0.30%		2010	TBD
QSEU953004	CHILD DEVELOPMENT CENTER	MOODY, Valdosta, GA	2009	0.42%		2011	TBD
QSEU053030	COMMERCIAL ACCESS GATE	MOODY, Valdosta, GA	2008	0.18%	Yes	2010	TBD
QSEU043002	RESCUE OPERATIONS/ MAINTENANCE HEADQUARTERS FAC	MOODY, Valdosta, GA	2010	0.30%		2012	TBD
QYZH013005R3	Logistics Readiness Center	MOUNTAIN HOME AFB, Mountain Home, ID	2009	0.30%		2011	TBD
VGLZ059023	Add to and Alter Squadron Operations Facility	MT CLEMENS, MI	2009	0.42%		2011	TBD
VGLZ089009	BRAC - Construct Munitions Admin Building	MT CLEMENS,MI	2009	0.55%		2011	TBD
VGLZ089008	BRAC - Construct A-10 Munitions Maintenance Shop	MT CLEMENS,MI	2009	0.77%		2011	TBD
VGLZ089010	BRAC - Construct Munitions Missile Maintenance Bays	MT CLEMENS,MI	2009	0.79%		2011	TBD

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Air Force							
BKTZ069078	TFI- Renovate Intel Squadron Facilities	NASHVILLE,TN	2008	0.30%		TBD	TBD
USAFE073006	Global Hawk Aircraft Maintenance and Operations Complex	NAVAL AIR STATION SIGONELLA, Sicily, Italy	2009	0.30%		2012	TBD
RKMF 093004	F 35 A Hangar / AMU	NELLIS, Las Vegas, NV	2009	0.25%	Yes		TBD
RKMF093002	CHILD DEVELOPMENT CENTER	NELLIS, Las Vegas, NV	2009	0.26%	Yes	2011	TBD
RKMF093003	AIRFIELD FIRE RESCUE STATION	NELLIS, Las Vegas, NV	2009	0.30%		2012	TBD
RKMF083011	F-16 AGGRESSOR SQUADRON OPS/ INFRASTRUCTURE	NELLIS, Las Vegas, NV	2009	0.30%		2012	TBD
RKMF103002	F-35A Add/Alter 422 Test Evaluation Squadron Facility	NELLIS, Las Vegas, NV	2010	0.30%		2012	TBD
RKMF093016	F-16 Aggressor Hanger/ Aircraft Maintenance Unit	NELLIS, Las Vegas, NV	2007	0.38%		2012	TBD
RKMF103007	F-35 Flight Simulator	NELLIS, Las Vegas, NV	2009	0.30%		2010	TBD
RKMF093016	Green Flag	NELLIS, Las Vegas, NV		0.33%		2012	TBD
RQLH059130	BRAC- Upgrade F-15 CIRF	NEW ORLEANS,LA	2008	0.30%		2010	TBD
WHAY089079	Base Defense Group Beddown	NEWBURGH, NY	2009	0.30%		TBD	TBD
RVKQ089092	COMMUNITY ACTIVITIES CENTER	Niagara Falls, NY	2009	0.30%			TBD
RVKQ009012	DINING HALL	Niagara Falls, NY	2009	0.30%			TBD
RVKQ109091	INDOOR SMALL ARMS RANGE	Niagara Falls, NY	2010	0.30%			TBD

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Air Force							
SGBP023004	ADAL Intelligence Squadron Facility	OFFUTT, Bellview, NB	2007	0.34%		2012	TBD
ASHE123000	Dormitory 144PN	Other	2010	0.30%		2013	TBD
AFSPC053012	NSSTTC	Other	2010	0.32%			TBD
WACC073020	20th Air Support Operations Squadron Complex	Other	2009	0.30%			TBD
SPBN079049	TFI Digital Ground Station,	OTIS, MA	2008	0.10%	Yes	2011	TBD
SXHT013006A	Child Development Center	PATRICK, Cocoa Beach, FL	2007	0.30%		2009	TBD
SXHT053001	Air Force Technical Applications Center	PATRICK, Cocoa Beach, FL	2010	0.27%	Yes		TBD
SZCQ989023	Replace Ops and Training	PEASE, NH	2007	0.40%		2010	TBD
JLQN069160	Squadron Operations Facility	PEORIA,IL	2008	0.48%		2012	TBD
TDKA074036B	National Security Space Institute	PETERSON AFB, Colorado Springs, CO	2009	0.09%	Yes	2012	TBD
TDKA109005	ACTIVE ASSOCIATE SQUAD OPS/AMU (TFI)	PETERSON AFB, Colorado Springs, CO	2009	0.30%		2011	TBD
TDKA 093005	RAIDRS	PETERSON AFB, Colorado Springs, CO	2010	0.30%			TBD
TDKA113007	CONSTRUCT CHILD DEVELOPMENT CENTER	PETERSON AFB, Colorado Springs, CO	2009	0.32%		2011	TBD
SXHT013025	Combat Weapons Training Facility	PETERSON AFB, Colorado Springs, CO	2008	0.10%	Yes	2011	TBD
TDKA 093004	East gate	PETERSON AFB, Colorado Springs, CO	2010	0.16%	Yes		TBD

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Air Force							
JLSS019022	VISITING QUARTERS - PHASE 1	Pittsburgh, PA	2008	0.30%			TBD
SZCQ089023	Replace Squadron Operations Facilities	PORTSMOUTH,NH	2008	0.30%		2011	TBD
TWLR039186	Construct ATC Control Tower	QUONSET, RI	2008	0.42%		2010	TBD
AEDY094002	IMPROVE MILITARY FAMILY HOUSING	RAF ALCONBURY, UK	2008	0.20%	Yes		TBD
BNDE064005	Improve Military family Housing	RAF CROUGHTON, UK	2007	0.20%	Yes	2010	TBD
TYFR043053	Joint Mobility Processing Center	RAMSTEIN, Ramstein, Germany	2007	0.30%		2011	TBD
TYFR043059	Dormitory - 128 RM	RAMSTEIN, Ramstein, Germany	2008	0.30%		2012	TBD
TYFR053037	CONSTRUCT AEROSPACE GROUND EQUIPMENT MAINTENANCE COMPLEX	RAMSTEIN, Ramstein, Germany	2009	0.30%		2012	TBD
TYFR0530402	CONTINGENCY RESPONSE GROUP COMPOUND - CLOSE SEMBACH	RAMSTEIN, Ramstein, Germany	2009	0.32%		2013	TBD
TYMX073730	BRAC - CSO Bachelor Housing	RANDOLPH, San Antonio, TX	2007	0.30%		2012	TBD
TYMX063006	BRAC - AF AUDIT AGENCY RELOCATION	RANDOLPH, San Antonio, TX	2010	0.30%		2011	TBD
TYMX103004	BRAC Renovate Bldg 38 for IFF, Egress and Survival Shops	RANDOLPH, San Antonio, TX	2010	0.30%		2011	TBD
UCTL919637	Replace Fire Station	RENO, NV	2008	0.54%		2010	TBD

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Air Force							
ULDF063001	BRAC - Add to and alter Information Directorate Lab	ROME LABORATORY, Rome, NY	2009	0.09%	Yes	2011	TBD
ULYB039126	Replace Fire Station	ROSECRANS, MO	2004	0.42%		2010	TBD
USEB889585B	Fire Station, Phase 2	SALT LAKE, UT	2004	0.32%		2011	TBD
USEB889585	Repl Fire Station	SALT LAKE, UT	2004	0.32%		2011	TBD
KELL099067	F-16 Mission Training Center (Flight Sim) Facility	SAN ANTONIO,TX	2009	0.30%		2012	TBD
KELL089001	Add/Alt Aircraft Maintenance Shops	SAN ANTONIO,TX	2009	0.39%		2012	TBD
XDQU069150	Relocate ASOS Facilities	SAVANNAH,GA	2008	0.30%		TBD	TBD
XDQU029237	Fire Station Addition	SAVANNAH,GA	1905	0.36%		2010	TBD
VDYD953021B	Child Development Center	SCOTT, Belleville, IL	2007	0.30%		2012	TBD
VDYD063001	Security Forces Operations	SCOTT, Belleville, IL	2007	0.30%		2012	TBD
VKAG063014	BRAC - Construct Flightline Kitchen	SEYMOUR JOHNSON, Goldsboro, NC	2007	0.30%		2010	TBD
VKAG963011A	CONSOLIDATED SUPPORT CENTER	SEYMOUR JOHNSON, Goldsboro, NC	2009	0.30%		2011	TBD
VKAG013004A	RADAR APPROACH CONTROL COMPLEX, PH 1	SEYMOUR JOHNSON, Goldsboro, NC	2010	0.26%	Yes	2012	TBD
VLSB073007	BRAC Fitness Center	SHAW, Sumter, SC	2008	0.24%	Yes	2011	TBD
VLSB093003	BRAC Renovate HQ Third Army Dormitory 401	SHAW, Sumter, SC	2008	0.30%		2011	TBD
VLSB073009	BRAC Child Development Center	SHAW, Sumter, SC	2008	0.30%		2010	TBD

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Air Force							
VLSB073010	BRAC Transient Lodging Facility	SHAW, Sumter, SC	2008	0.30%		2011	TBD
VLSB073011	BRAC Visiting Officers Quarters	SHAW, Sumter, SC	2008	0.30%		2011	TBD
VLSB093010	DORMITORY (144 RM)	SHAW, Sumter, SC	2009	0.30%		2011	TBD
VLSB043001R3	Physical Fitness Center	SHAW, Sumter, SC	2009	0.30%		2011	TBD
VLSB073002	Add/Alt AFCENT HQ	SHAW, Sumter, SC	2010	0.48%		2013	TBD
VNVP053003A	Technical Training Support Facil.	SHEPPARD, Witchita Falls, TX	2011	0.32%			TBD
VNVP083003P1	ENJJPT FTW Cplx, Ph I	SHEPPARD, Witchita Falls, TX	2011	0.50%			TBD
VUBV059124	Range Support Facility Complex	SMOKY HILL, KS	2007	0.30%		2010	TBD
SCLA069165	TFI-Predator LRE Beddown	SOUTHERN CALIFORNIA, CA	2008	0.30%		2011	TBD
VYHK988000	CONSTRUCT MEDICAL CLINIC	SPANGDAHLEM AIR BASE, Trier, Germany	2007	0.30%		2012	TBD
VYHK093005	CONSTRUCT CHILD DEVELOPMENT CENTER	SPANGDAHLEM AIR BASE, Trier, Germany	2009	0.30%		2012	TBD
VYHK043100	CONSTRUCT FITNESS CENTER	SPANGDAHLEM AIR BASE, Trier, Germany	2009	0.30%		2012	TBD
GJKZ059108	BRAC - Relocate Combat Communications Squadron	SPOKANE, WA	2008	0.31%		2011	TBD
WAAR009098	Combat Comm Tng Complex	SPRINGFIELD, OH	2008	0.70%		2011	TBD
DCFT069059	TFI - cNAF Beddown - Upgrade Facilities	SPRINGFIELD, IL	2008	0.38%		TBD	TBD

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Air Force							
ULYB099003	Add to Fire Station	ST JOSEPH, MO	2008	0.20%	Yes	2011	TBD
MSQB059091	BRAC-Relocate 157 AOG	ST LOUIS, MO	2009	0.26%	Yes	2011	TBD
WFGE089076	Add to and Alter AOS Facility	STATE COLLEGE, PA	2010	0.30%		TBD	TBD
HAAW039012	Upgrade ASOS Facilities	SYRACUSE, NY	2008	0.50%		2011	TBD
LDXF069123	TFI - ASOS Beddown - Upgrade Facilities	TERRE HAUTE, IN	1905	0.30%		TBD	TBD
WWYK043008	Consolidated Fuel Overhaul, Repair and Test Facility	TINKER, Oklahoma City, OK	2007	0.30%		2010	TBD
WWYK083004	Medical Facility	TINKER, Oklahoma City, OK	2007	0.30%		2012	TBD
WWYK063012	Aircraft Hangar	TINKER, Oklahoma City, OK	2008	0.32%		2012	TBD
WWYK033005	Visitor Information Center	TINKER, Oklahoma City, OK	2009	0.34%		2011	TBD
WWYK043003A	Child Development Center	TINKER, Oklahoma City, OK	2010	0.36%		2012	TBD
WYTD009206	Multi-Use Instructional Facility	TOLEDO, OH	2001	0.34%		2011	TBD
XDAT083002	CONSTRUCT KC-10 CARGO LOAD TRAINING (CLT) FACILITY	TRAVIS AIR FORCE BASE, Fairfield, CA	2009	0.14%	Yes	2011	TBD
XDAT993001	LARGE CRASH RESCUE STATION	TRAVIS AIR FORCE BASE, Fairfield, CA	2009	0.21%	Yes	2011	TBD
XDAT043016	C-17 Two-Bay Hangar	TRAVIS AIR FORCE BASE, Fairfield, CA	2007	0.21%	Yes	2010	TBD

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Air Force							
XGFG059041	Comm Audiovisual Facility	TRUAX FIELD, WI	2007	0.37%		2010	TBD
XLWU063009	1 AF AFFOR Center, PH 3	TYNDALL, Panama City, FL	2008	0.30%		2010	TBD
XLWU063004	325 ACS OPS TRAINING COMPLEX	TYNDALL, Panama City, FL	2009	0.30%		2011	TBD
XLWU023001	FITNESS CENTER	TYNDALL, Panama City, FL	2007	0.42%		2011	TBD
XQPZ060111	Upgrade Academic Facility, Phase V	USAF ACADEMY, Colorado Springs, CO	2008	0.14%	Yes	2010	TBD
XQPZ104004	Cadet Fitness Center Addition	USAF ACADEMY, Colorado Springs, CO	2009	0.30%		2011	TBD
XQPZ098004	Construct Vet Clinic	USAF ACADEMY, Colorado Springs, CO	2009	0.30%		2010	TBD
XQPZ070109	Const Golf Course Learning Center	USAF ACADEMY, Colorado Springs, CO	2010	0.30%		2011	TBD
XQPZ085006	HAC	USAF ACADEMY, Colorado Springs, CO	2010	0.30%		2011	TBD
XQPZ 084017	AFA - Center for Character and Leadership Development	USAF ACADEMY, Colorado Springs, CO	2009	0.30%		2012	TBD
XTLF063301	Fuel System Maintenance Hangar	VANCE, Enid, OK	2007	0.30%		2012	TBD
XUMU003000	CONSTRUCT CHILD DEVELOPMENT CENTER	VANDENBERG AFB, Lompoc, CA	2009	0.32%		2011	TBD
VILS093001	Air Support Operations Squadron,	Vilseck Garrison, Germany	2009	0.42%		2013	TBD
UHHZ023005	Aircraft Hangar	WARNER ROBINS, Warner Robins, GA	2007	0.30%		2011	TBD

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Air Force							
UHHZ053002	Command Post Facility	WARNER ROBINS, Warner Robins, GA	2007	0.30%		2010	TBD
UHHZ033013	AVIONICS FACILITY	WARNER ROBINS, Warner Robins, GA	2008	0.30%		2011	TBD
FPBB069168	Reaper LRE Beddown	WATERTOWN, NY	2008	0.30%		2012	TBD
YVEW083003	CONSTRUCT ASOC COMPLEX	WHEELER ADMIN ANNEX, Oahu, HI	2009	0.30%		2012	TBD
YWHG091001	Massive Ordnance Penetrator	WHITEMAN, Knob Noster, MO	2010	0.00%	Yes	2011	TBD
YWHG031001	Consolidated Communications Facility	WHITEMAN, Knob Noster, MO	2007	0.14%	Yes	2011	TBD
YWHG041005	SECURITY FORCES ANIMAL COMPLEX	WHITEMAN, Knob Noster, MO	2009	0.30%		2010	TBD
YWHG051003	Explosive Ordnance Disposal (EOD) Operations Complex	WHITEMAN, Knob Noster, MO	2010	0.30%		2011	TBD
YWHG059302	Improve Family Housing	WHITEMAN, Knob Noster, MO	2008	0.20%	Yes	2010	TBD
PRQE089032	TFI - Upgrade DCGS Facilities	WICHITA,KS	2008	0.39%		2011	TBD
YZEU069106	TFI-ASOS Beddown	WILL ROGERS, OK	2006	0.30%		2010	TBD
CEKT079036	TFI - cNAF Beddown - Upgrade Facilities	WINDSOR LOCK, CT	2008	0.31%		2011	TBD
ZHTV053204	Information Technology Complex, PH 1	WRIGHT PATTERSON, Fairborn, OH	2009	0.14%	Yes	2012	TBD
ZHTV083113	BRAC - Add to and Alter Sensors Laboratory (AFRL/SN)	WRIGHT PATTERSON, Fairborn, OH	2007	0.30%		2012	TBD
ZHTV083108	BRAC - AFRL/HE (Brooks)	WRIGHT PATTERSON, Fairborn, OH	2007	0.30%		2012	TBD

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Air Force							
ZHTV083104	BRAC - Radiation Calibration Facility	WRIGHT PATTERSON, Fairborn, OH	2007	0.30%		2012	TBD
ZHTV083111	BRAC - USAFSAM (INC 2)	WRIGHT PATTERSON, Fairborn, OH	2007	0.30%		2012	TBD
ZHTV083105	BRAC - AFIOH Facility	WRIGHT PATTERSON, Fairborn, OH	2008	0.30%		2012	TBD
ZHTV083106	BRAC - AFRL/HE (Mesa)	WRIGHT PATTERSON, Fairborn, OH	2008	0.30%		2012	TBD
ZHTV083118	BRAC - Dining Facility	WRIGHT PATTERSON, Fairborn, OH	2008	0.30%		2012	TBD
ZHTV083110	BRAC - USAFSAM Consult Service	WRIGHT PATTERSON, Fairborn, OH	2008	0.30%		2012	TBD
ZHTV063202	SECURITY FORCES OPERATIONS FACILITY	WRIGHT PATTERSON, Fairborn, OH	2008	0.30%		2011	TBD
ZHTV063301	Conversion for Advanced Power and Thermal Research Lab	WRIGHT PATTERSON, Fairborn, OH	2009	0.30%		2012	TBD
ZHTV083114	BRAC - Pipeline Dormitory	WRIGHT PATTERSON, Fairborn, OH	2009	0.32%		2010	TBD
PTFL029107	Replace Base Civil Engineer Complex	WRIGHTSTOWN,NJ	2008	0.30%		2012	TBD
LYBH009131	Replace Maint Hangar/ Shops	YEAGER, WV	2005	0.50%		2010	TBD
LYBH009134	Fuel System Hangar/ shops	YEAGER, WV	2008	0.50%		2011	TBD
ZNRE094306	IMPROVE MFH (PHASE 7)	YOKOTA AIR BASE, Fussa, Tokyo	2009	0.30%		2014	TBD
ZQEL999009	Joint Services Lodging Facility Phase 2	Youngstown, Vienna, OH	2009	0.30%			TBD
ZRVL099068	Supply Warehouse	ZANESVILLE, OH	2009	0.32%		2011	TBD

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Air Force							
PTFL063000	Base Ops Command Post		2009	0.30%		2012	TBD
PTFL063028	Warfighter Family Service Center		2010	0.30%		2012	TBD

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Army							
46622	General Instruction Building	Presidio of Monterey, California	2007	3%	Yes		
67468	Range Control Facility	Fort Hunter Liggett, California	2007	30%			
62812	Indoor Range	Fort Carson, Colorado	2007	10%	Yes		
90045	Army National Guard Readiness Center	Niantic, Connecticut	2007	30%			
60241	Joint Personal Effects Depot	Dover Air Force Base, Delaware	2007	30%			
68264	Southern Command Headquarters Facility	Miami Doral, Florida	2007	30%			
120250	Army National Guard Aviation Support Facility	Jacksonville, Florida	2007	30%			
61920	Brigade Complex-Headquarters	Hunter Army Air Field, Georgia	2007	31%			

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Army							
68863	Barracks Complex	Hunter Army Air Field, Georgia	2007	38%			
67648	Simulations Training Facility	Fort Benning, Georgia	2007	37%			
65041	Trainee Barracks Complex	Fort Benning, Georgia	2007	32%			
64462	Reception Station, Phase 1	Fort Benning, Georgia	2007	39%			
50950	Barracks Complex	Wheeler Army Air Field, Hawaii	2007	30%			
59557	Barracks Complex	Schofield Barracks, Hawaii	2007	30%			
61873	Barracks Complex	Schofield Barracks, Hawaii	2007	30%			
64316	Barracks Complex	Fort Leavenworth, Kansas	2007	30%			
55118	Digital Multipurpose Range Complex	Fort Riley, Kansas	2008	18%	Yes		
64903	Vehicle Maintenance Shop	Fort Campbell, Kentucky	2007	<30%	Yes		
67577	Army Reserve Center	Butte, Montana	2007	47%			
67433	Army Reserve Center	Fort Drum, New York	2007	33%			
65558	Student Barracks	Fort Bragg, North Carolina	2007	32%			
63437	Indoor Range	Fort Bragg, North Carolina	2007	12%	Yes		
410030	Army National Guard Readiness Center	Ontario, Oregon	2007	30%			

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Army							
420913	Army National Guard Field Maintenance Shop Stryker Brigade Combat Team	Graterford, Pennsylvania	2008	30%			
420189	Army National Guard Field Maintenance Shop, Add/Alter Stryker Brigade Combat Team	Philadelphia, Pennsylvania	2008	30%			
420191	Army National Guard Readiness Center, Add/ Alter Stryker Brigade Combat Team	Lebanon, Pennsylvania	2008	30%			
420199	Army National Guard Readiness Center, Add/ Alter Stryker Brigade Combat Team (SBCT)	Hanover, Pennsylvania	2008	30%			
420190	Army National Guard Readiness Center, Add/ Alter Stryker Brigade Combat Team (SBCT)	Kutztown, Pennsylvania	2008	30%			
420359	Army National Guard Readiness Center Add/ Alter Stryker Brigade Combat Team (SBCT)	Hazelton, Pennsylvania	2008	30%			
420180	Army National Guard Readiness Center Stryker Brigade Combat Team (SBCT)	Gettysburg, Pennsylvania	2008	30%			
420220	Army National Guard Readiness Center Stryker Brigade Combat Team (SBCT)	Carlisle, Pennsylvania	2008	30%			

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Army							
420183	Army National Guard Readiness Center Stryker Brigade Combat Team (SBCT)	East Fallowfield Township, Pennsylvania	2008	30%			
420223	Army National Guard Readiness Center, Alteration Stryker Brigade Combat Team (SBCT)	Philadelphia, Pennsylvania	2008	30%			
420198	Army National Guard Readiness Center Stryker Brigade Combat Team (SBCT)	Holidaysburg, Pennsylvania	2009	30%			
68793	Barracks Complex	Fort Hood, Texas	2008	30%			
66824	Battle Command Training Center, Phase 1	Fort Sam Houston, Texas	2007	32%			
66690	Maneuver Systems Sustainment Center, Phase 2	Red River Army Depot, Texas	2007	30%			
67576	Army Reserve Center	Naval Air Station, Joint Reserve Base, Fort Worth, Texas	2007	33%			
63327	Indoor Range	Fort Lewis, Washington	2007	30%			
65933	Brigade Complex, Increment 2	Fort Lewis, Washington	2007	33%			
67432	Regional Medical Training Facility	Fort McCoy, Wisconsin	2007	33%			
560992	Army National Guard Qualification Training Range	Camp Guernsey, Wyoming	2007	30%			
	Aviation Task Force Complex, Phase 2	Fort Wainwright, Alaska	2008	30%			

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Army							
66011	Forensic Laboratory Expansion	Fort Gillem, Georgia	2008	46%			
60555	Information Systems Facility	Wiesbaden, Germany	2008	30%			
57179	Regional SATCOM Support Center	Wheeler AFB, Hawaii	2007	27%	Yes		
65504	Child Development Center	Fort Knox, Kentucky	2008	30%			
58625	SATCOM Facility	Fort Detrick, Maryland	2007	36%			
61470	Access Control Point	Detroit Arsenal, Michigan	2007	42%			
68815	Child Development Center	Fort Leonard Wood, Missouri	2008	30%			
65202	Company Headquarters Building	Fort Bragg, North Carolina	2007	30%			
53389	Igloo Storage, Installation	McAlester, Oklahoma	2008	30%			
58350	High Explosive Magazine, Installation	McAlester, Oklahoma	2008	30%			
64608	Fire Station/MP Station Biggs	Fort Bliss, Texas	2008	30%			
68779	Training Aids Support Center	Fort A.P. Hill, Virginia	2008	30%			
420181	Army National Guard Readiness Center Stryker Brigade Combat Team (SBCT)	Army National Guard, Huntingdon	2007	30%			
440016	Army National Guard Readiness Center	East Greenwich, Rhode Island	2008	30%			
440039	Army National Guard Aviation Support Facility	North Kingstown, Rhode Island	2008	30%			

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Army							
560992	Army National Guard Qualification Training Range	Camp Guernsey, Wyoming	2008	30%			
310076	Armed Forces Reserve Center (JFHQ)	Lincoln, Nebraska	2007	30%			
180116	Readiness Center	Lawrence, IN	2008	30%			
230070	Regional Training Institute PH 1	Bangor, ME	2008	30%			
240031	Readiness Center, Add/Alt	Salisbury, MD	2008	30%			
240189	Army Aviation Support Facility, Add/Alt	Edgewood, MD	2008	30%			
250106	Readiness Center, Add/Alt (ADRS)	Methuen, MA	2007	30%			
360193	Field Maintenance Shop	Queensbury, NY	2008	30%			
450218	Readiness Center	Anderson, SC	2007	30%			
90047	Regional Training Institute	Camp Rell, CT	2007	30%			
100046	Army Aviation Support Facility, Add/Alt	New Castle, DE	2008	30%			
130109	Armed Forces Reserve Center	Marietta, GA	2007	30%			
460077	Armed Forces Reserve Center	Rapid City, SD	2008	30%			
570402	ARNG Addition, PH II	Arlington, VA	2008	30%			
40014	Readiness Center	Camp Navajo, AZ	2008	30%			
40170	Readiness Center	Florence, AZ	2008	30%			
40226	Readiness Center	Papago Park, AZ	2008	30%			
80203	Readiness Center	Fort Lupton, CO	2008	30%			

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Army							
80204	Readiness Center	Grand Junction, CO	2008	30%			
270260	Readiness Center	Arden Hills, MN	2008	30%			
450367	Readiness Center, Add/Alt	Beaufort, SC	2008	30%			
50167	Readiness Center	Cabot, AR	2009	30%			
120191	Regional Training Institute, PH 4	Camp Blanding, FL	2009	30%			
170614	Readiness Center	Urbana, IL	2009	30%			
180137	Combined Arms Collective Training Facility, PH I	Muscatatuck, IN	2008	30%			
190136	Readiness Center, Add/Alt	Davenport, IA	2008	30%			
190146	Readiness Center, Add/Alt	Mount Pleasant, IA	2009	30%			
210290	Aviation Operations Facility PH3	London, KY	2009	30%			
260180	Barracks Replacement PH I	Camp Grayling, MI	2008	30%			
320069	Readiness Center, Add/Alt	Elko (Carlin), OH	2009	30%			
390257	Barracks	Camp Perry, OH	2009	30%			
390264	Barracks	Ravenna, OH	2009	30%			
420511	Readiness Center, Add/Alt	Honesdale , PA	2009	30%			
450185	Field Maintenance Shop, PH I	Florence, SC	2009	30%			
460132	Barracks/Dining/Admin & Parking Complex, PH I	Camp Rapid, SD	2009	30%			

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Army							
470043	Readiness Center	Tullahoma, TN	2008	30%			
500052	Readiness Center	Ethan Allen Firing Rnge Jericho VT	2008	30%			
540206	Multi-Purpose Building, PH II	Camp Dawson, WV	2009	30%			
67561							
(360401)	Armed Forces Reserve Center Field Maintenance Shop, Part 2	Farmingdale, NY	2007	30%			
64780							
(390126)							
(390174)	Armed Forces Reserve Center Field Maintenance Shop	Mansfield, OH	2007	30%			
370044	Armed Forces Reserve Center (JFHQ)	Raleigh, NC	2006	30%			
60115	Readiness Center, PH 1	Los Alamitos, California	2009	30%			
160120	Combined Arms Collective Training Facility	Gowen Fields, Idaho	2009	30%			
180145	Combined Arms Collective Training Facility, PH 1b	Muscatatuck, Indiana	2009	30%			
250087	Armed Forces Reserve Center (JFHQ)	Hanscom AFB, Massachusetts	2009	30%			
280352	Combined Arms Collective Training Facility, Add/Alt	Camp Shelby, Mississippi	2008	30%			
450252	Army Aviation Support Facility, Add/Alt	Eastover, South Carolina	2009	30%			

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Army							
450353	Army Aviation Support Facility	Greenville, South Carolina	2009	30%			
520014	Regional Training Institute, PH I	St. Croix, Virgin Islands	2009	30%			
130077	Readiness Center	Fort Benning	2009	30%			
270261	Readiness Center, PH 2	Arden Hills, Minnesota	2008	30%			
290213	Readiness Center, Add/Alt	Boonville, Missouri	2009	30%			
320143	Readiness Center	North Las Vegas, Nevada	2009	30%			
74549							
(10276)	Armed Forces Reserve Center, PH 2	Birmingham, Alabama	2007	30%			
50043	Combined Support Maintenance Shop	Camp Robinson, AR	2008	30%			
50163	Combined Arms Collective Training Facility	Fort Chaffee, AR	2009	30%			
60429	Combined Arms Collective Training Facility	Camp Roberts, CA	2009	30%			
80062	HAATS/AASF	Gypsum/Eagle, CO	2009	30%			
80067	Regional Training Institute	Fort Carson, CO	2007	30%			
140001	Combined Support Maintenance Shop, PH 1	Barrigada, Guam	2009	30%			
160093	Barracks (ORTC)	Gowen Field, ID	2009	30%			
179237	Combined Support Maintenance Shop, Add/Alt	Springfield, IL	2009	30%			
200063	Armed Forces Reserve Center	Wichita East, KS	2009	30%			
200090	Field Maintenance Shop	Wichita East, KS	2009	30%			

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Army							
220114	Armed Forces Reserve Center	Minden, LA	2008	30%			
220208	Tactical Unmanned Aircraft System Facility	Fort Polk, LA	2009	30%			
240186	Tactical Unmanned Aircraft System Facility	Webster Field, MD	2009	30%			
250115	Readiness Center, Add/Alt	Westfield, MA	2009	30%			
260207	Combined Arms Collective Training Facility	Camp Grayling, MI	2009	30%			
270267	Tactical Unmanned Aircraft System Facility	Camp Ripley, MN	2009	30%			
330034	Classroom Facility (Regional Training Institute)	Pembroke, NH	2009	30%			
330035	Barracks Facility (Regional Training Institute)	Pembroke, NH	2009	30%			
380014	Readiness Center, Add/Alt	Camp Grafton, ND	2009	30%			
440009	United States Property and Fiscal Office	East Greenwich, RI	2009	30%			
460085	Readiness Center	Watertown, SD	2009	30%			
520034	Readiness Center (JFHQ)	St. Croix, VI	2009	30%			
530022	Combined Support Maintenance Shop	Tacoma, WA	2009	30%			
540068	Readiness Center	Morgantown, WV	2009	30%			
540084	Readiness Center	Moorefield, WV	2009	30%			
560116	Field Maintenance Shop	Laramie, WY	2009	30%			

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Army							
80201	Readiness Center	Colorado Springs, CO	2009	30%			
80202	Readiness Center	Windsor, CO	2009	30%			
130127	Readiness Center	Cumming, GA	2009	30%			
170801	Readiness Center	Cook County, IL	2009	30%			
310107	Readiness Center	Mead, NE	2009	30%			
310110	Readiness Center. Add/ Alt	Lincoln, NE	2009	30%			
10263	Readiness Center, PH 2	Fort McClellan TC, AL	2009	30%			
90010	Readiness Center	Windsor Locks, CT	2008	30%			
240017	Readiness Center, Add/ Alt	Dundal, MD	2007	30%			
340115	Army Aviation Support Facility	Lakehurst, NJ	2007	30%			
350115	Readiness Center, Add/ Alt	Santa Fe, NM	2007	30%			
410026	Readiness Center	The Dalles, OR	2008	30%			
510307	Combined Arms Collective Training Facility	Fort Pickett, VA	2009	30%			
80126	Readiness Center	Alamosa, GA	2009	30%			
450403	Readiness Center, Add/ Alt	Allendal, SC	2009	30%			
80201	Readiness Center	North Colorado Springs, CO	2010	30%			
80202	Readiness Center	Windsor, CO	2010	30%			
80206	TUAS Addition/ Alteration, BAFB	Aurora, CO	2010	30%			
100010	Regional Training Institute	Bethany Beach, DE	2010	30%			

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Army							
100037	Armed Forces Reserve Center	New Castle, DE	2010	30%			
150043	HI-ARNG Brigade Readiness Center	Kalaeloa, HI	2010	30%			
190139	Readiness Center, Add/Alt	Iowa Falls, IA	2010	30%			
190151	AASF, Add/Alt	Boone, IA	2010	30%			
190154	New USPFO	Camp Dodge, IA	2010	30%			
190155	FMS Add/Alt	Fairfield, IA	2010	30%			
190157	MVSB	Bld S-70, Camp Dodge, IA	2010	30%			
210291	Readiness Center	Owensboro, Ky.	2010	30%			
210292	JSO Phase IV	London, KY	2010	30%			
210734	Readiness Center	Burlington, Ky	2010	30%			
310085	Readiness Center	Grand Island, NE	2010	30%			
310086	Readiness Center (Titan)	Mead, NE	2010	30%			
350075	Readiness Center, Add/Alt	Farmington, NM	2010	30%			
380090	Unit Training Equipment Site (UTES) Add/Alt	Camp Grafton, ND	2010	30%			
550142	Field Maintenance Facility	Wausau, Wisconsin	2010	30%			
550245	Tactical Unmanned Aircraft System Facility	Camp Williams, Wisconsin	2010	30%			
170611A	Milan Readiness Center Add/Alt	Milan, IL	2010	30%			
74079	CARLISLE, General Instruction Building	Carlisle Barracks	2010	30%			

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Army							
70789	MEADE, Infrastructure Improvements	Fort Meade	2010	0%	yes		
66750	APG, Auto Technology Evaluation Fac, Ph 3	Aberdeen Proving Ground, Md	2010	0%	yes		
66918	APG, Auto Tech Evaluate Facility Ph 2	Aberdeen Proving Ground, Md	2010	0%	yes		
74934	APG, Fire Station	Aberdeen Proving Ground, Md	2010	0%	yes		
59978	APG, Analytical Chem Wing-Advanced Chem Lab	Aberdeen Proving Ground, Md	2010	0%	yes		
74885	BELVOIR, Fire Station	Fort Belvoir	2010	0%	yes		
64234	BELVOIR, Admin Facs Army Agencies	Fort Belvoir	2010	0%	yes		
60027	DETRICK, Community Support Center	Fort Detrick	2010	0%	yes		
74450	Child Development Center-Under 6 Years Age	Fort Polk	2010	0%	yes		
73639	Lab and Test Building, General Purpose	White Sands Missile Range	2010	0%	yes		
72110	UEPH Housing for Engr BN	White Sands Missile Range	2010	0%	yes		
77553	Police/MP Station	White Sands Missile Range	2010	0%	yes		
72845	Unmanned Aerial System (UAS) Hangar	Fort Hood	2010	0%	yes		
73641	PHYSICS LAB	White Sands Missile Range	2010	0%	yes		

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Army							
65374	Operational Readiness Training Complex	Fort Hood	2010	0%	yes		
69828	Unmanned Aerial Systems, Fort Hood, TX	Fort Hood	2010	0%	yes		
71948	Unit Operations - JLENS	Fort Bliss	2010	30%			
72665	THAAD BATTERY	Fort Bliss	2010	30%			
71515	Family Life Center	Fort Hood	2010	0%	yes		
71465	Company Operations Facilities	Fort Hood	2010	0%	yes		
71465	Company Operations Facilities	Fort Hood	2010	0%	yes		
71639	Brigade Complex	Fort Hood	2010	0%	yes		
71639	Brigade Complex	Fort Hood	2010	0%	yes		
71639	Brigade Complex	Fort Hood	2010	0%	yes		
71462	Battalion Complex	Fort Hood	2010	0%	yes		
71462	Battalion Complex	Fort Hood	2010	0%	yes		
71462	Battalion Complex	Fort Hood	2010	0%	yes		
71462	Battalion Complex	Fort Hood	2010	0%	yes		
74635	THAAD Battery Complex, Ph 1	Fort Bliss	2010	0%	yes		
74635	THAAD Battery Complex, Ph 1	Fort Bliss	2010	0%	yes		
73686	CAP 073686 JLENS Battery I Phase 1 (TEMF)	Fort Bliss	2010	0%	yes		
73690	JLENS Tactical Training Facility	Fort Bliss	2010	0%	yes		
68530	Barracks Complex	Fort Sam Houston	2010	0%	yes		

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Army							
66726	Picatinny - Ballistic Evaluation Facility Ph 2 (PN066726)	Picatinny Arsenal	2010	0%	yes		
73298	FY11 LEE MCA PN 73298 COMPANY OPERATIONS FACILITY	Fort Lee	2010	0%	yes		
71114	FY11 LEE PN 71114 TRAINING SUPPORT CENTER	Fort Lee	2010	0%	yes		
36113	LEE MCA PN 036113 AIT BARRACKS COMPLEX PH6	Fort Lee	2010	30%			
72089	Rappelling Training Area	Fort Lewis	2010	0%	yes		
72838	Regional Logistic Spt Complex Warehouse	Fort Lewis	2010	0%	yes		
72854	Regional Logistic Support Complex	Fort Lewis	2010	0%	yes		
65133	Brigade Trans 1 BCT	Fort Riley	2010	33%			
62158	Trainee Barracks Complex 6, Ph 2	Fort Leonard Wood	2010	0%	yes		
69267	Training Barracks	Fort Leonard Wood	2010	0%	yes		
75078	Central Receiving Warehouse Replacement	Fort Leonard Wood	2010	0%	yes		
72055	Construct a standar-design combat support Brigade Headquarters	Fort Leonard Wood	2010	0%	yes		
74914	Aircraft Direct Fueling Facility	Fort Riley	2010	0%	yes		
76124	Install EMCS System	Fort Riley	2010	0%	yes		
65135	Engineer Combat Bn	Fort Riley	2010	33%			

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Army							
51857	Trainee Barracks Complex 3 Incr 1	Fort Leonard Wood	2010	0%	yes		
51857	Trainee Barracks Complex 3 Incr 1	Fort Leonard Wood	2010	0%	yes		
65714	Attack Aviation BN Cpx	Fort Riley	2010	0%	yes		
65714	Attack Aviation BN Cpx	Fort Riley	2010	0%	yes		
65714	Attack Aviation BN Cpx	Fort Riley	2010	0%	yes		
73808	Vehicle Maintenance Shop	Fort Leavenworth	2010	0%	yes		
76748	Family Housing New Construction	Fort McCoy	2010	0%	yes		
72968	Battalion Headquarters	Fort Carson	2010	0%	yes		
13852	FY11 Battle Sims training Support Center	Fort Carson	2010	0%	yes		
76235	FY12 MCA PN 076235 BARRACKS W/DFAC, CP HENRY/GEORGE	Camp Henry/George, Korea	2010	0%	yes		
72650	FY12 MCA 072650 BARRACKS AND VMF, CP CARROLL	Camp Carroll, Korea	2010	0%	yes		
67169	FY08 MCA PN67169 Child Dev Ctr 0-5, SB	Schofield Barracks	2010	0%	yes		
73746	PN073746 PHYSICAL FITNESS FACILITY	Fort Shafter	2010	100%			
72067	FY10 MMCA PN72067 Engineer Maintenance Fac, Kwajalein	Kwajalein Atoll	2010	100%			
67189	FY13 MCA PN67189 Consolidated Motorpool, Phase 3, FS	Fort Shafter	2010	0%	yes		

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Army							
57394	FY13 MCA PN57394 200-PN UEPH BARRACKS, SB	Schofield Barracks	2010	0%	yes		
65650	FY11 MCA PN65650 USARPAC Cmd & Cntrl Complex, Ph 1, FS	Fort Shafter	2010	30%			
67188	FY13 MCA PN67188 Consolidated Motorpool, Phase 2, FS	Fort Shafter	2010	0%	yes		
55873	FTG127 PN055873 Fire Station	Fort Greely	2010	0%	yes		
61827	FTR266 Railhead Ops Fac	Fort Richardson	2010	0%	yes		
69413	FTW362 Facility Energy Improvements	Fort Wainwright	2010	0%	yes		
73598	FTW365 SIMULATOR BUILDING	Fort Wainwright	2010	0%	yes		
67350	FTG135 Facility Energy Improvements	Fort Greely	2010	0%	yes		
66146	FTR333 Combat Pistol Qualify Range	Fort Richardson	2010	0%	yes		
74814	FTW364 RELIGIOUS EDUCATION FACILITY	Fort Wainwright	2010	0%	yes		
75305	FTW363 Family Housing Replacement Construction	Fort Wainwright	2010	0%	yes		
73811	FTR275 Multipurpose Machine Gun Range	Fort Richardson	2010	0%	yes		
61561	FTR251 PN061561 Brigade Combat Team, Ph 1	Fort Richardson	2010	0%	yes		

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Army							
67113	FTW357 Aviation Task Force Complex, Ph 3	Fort Wainwright	2010	30%			
59982	FTW360 1+1 Barracks	Fort Wainwright	2010	0%	yes		
64018	FTW371 Stryker BCT Complex	Fort Wainwright	2010	0%	yes		
74550	LIC: 38233 - PN: 074550, ACCESS CONTROL BUILDING	Redstone Arsenal	2010	0%	yes		
60463	LIC: 40540, Aviation Component Maintenance Shop	Fort Rucker	2010	0%	yes		
69848	LIC: 40538, Repair Bays, DOL/DPW/IMMA/IMMD	Fort Rucker	2010	0%	yes		
72932	Commissary	Miami, Fl	2010	0%	yes		
70234	Training Aids Center	Fort Rucker	2010	0%	yes		
76437	Physical Fitness Facility		2010	0%	yes		
61383	Construction of new Barrack FY011	Honduras Various	2010	0%	yes		
61562	Design and construct security towers at MOTSU	Military Ocean Terminal, Sunny Point Nc	2010	0%	yes		
60550	FTH FYLR FIRE STATION TWO COMPANY	Fort Huachuca	2010	30%			
73389	AEN, 73389, Troop Housing (2130 PAX) - BAF	Afghanistan Various	2010	0%	yes		
73236	AEN, 73236, Temp Housing Ph 1 - Altimur	Afghanistan Various	2010	0%	yes		

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Army							
64815	Battle Command Training Center (BCTC) - (PN 64815)	Fort Sill	2010	0%	yes		
71727	Ft Drum - Indoor Rifle Range (PN 071727)	Fort Drum	2010	0%	yes		
70579	Ft Drum - Health Clinic Add/Alt (PN 070579)	Fort Drum	2010	0%	yes		
70580	Ft Drum - Dental Clinic Add/Alt (PN 070580)	Fort Drum	2010	0%	yes		
76080	Infrastructure Support, Incr 3	Fort Benning	2010	30%			
71583	Operations Facility	Fort Stewart	2010	30%			
39614	Battle Simulation Center	Fort Stewart	2010	23%	yes		
71125	Virtual TADDS Fac 1	Fort Stewart	2010	30%			
69830	1 UAS Unit	Fort Stewart	2010	30%			
72456	Classrooms & BN Dining Fac -28	Fort Benning	2010	0%	yes		
72457	Benning Classrooms & BN Dng Fac 29	Fort Benning	2010	0%	yes		
72190	Center Upgrade	Fort Stewart	2010	30%			
72189	Infantry Battle Course	Fort Stewart	2010	30%			
67166	Modif Record Fire Range	Fort Stewart	2010	30%			
73930	Student Barracks	Fort Bragg	2010	0%	yes		
72324	Benning Barracks Incr 2	Fort Benning	2010	0%	yes		
73947	Vehicle Maintenance Shop	Fort Bragg	2010	0%	yes		
9770500	DDESS NC DSO	Fort Bragg	2010	0%	yes		
69835	UAS	Fort Bragg	2010	0%	yes		

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Army							
62953	Rail Loading Facility Expansion	Fort Benning	2010	0%	yes		
78212	RCx Separates Buildings in A Area	Fort Bragg	2010	0%	yes		
74987	Dining Facility	Fort Bragg	2010	0%	yes		
44968	Div HQ/82nd Airborne Div	Fort Bragg	2010	0%	yes		
70751	Tactical Equipment Maintenance Facility	Fort Bragg	2010	0%	yes		
74737	Repair Barracks, Bldg 2762	Fort Benning	2010	0%	yes		
63799	3rd ID BDE Combat Team Cplx	Fort Benning	2010	0%	yes		
62728	Dog Kennel Facility	Fort Stewart	2010	40%			
75601	SENSITIVE COMPARTMENTED INFORMATION FACILI	Fort Stewart	2010	40%			
76196	FY13 MCA 076196 Company Ops Facility, USAG Humphreys		2010	0%	yes		
72149	Company Operations Facilities	Fort Bliss	2010	0%	yes		
71712	Shoothouse	Fort Campbell	2010	0%	yes		
64297	Brigade Complex	Fort Campbell	2010	0%	yes		
70438	Hospital Add/Alt	Fort Campbell	2010	30%			
58675	Mout Collective Training Facility	Fort Knox	2010	0%	yes		
67335	APG C4ISR, Phase 2 Increment 2	Aberdeen Proving Ground, Md	2010	30%			

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Army							
66714	FY10 EUSTIS PN66714 AIT Training Complex PH I	Fort Eustis	2010	30%			
65790	FY11 AP HILL MCA PN 65790 DEMOLITION RANGE	Fort A P Hill	2010	30%			
64507	Camden NJ BRAC AFR Ctr/OMS/Unh Stg	Camden, Nj	2010	30%			
72008	DOIM Information Systems Facility	Fort McCoy	2010	30%			
67702	Bryan TX Army Reserve Center/Land	Bryan, TX	2010	30%			
71304	GTA Denton TX Army Reserve Center/Land	Denton, TX	2010	30%			
74212	GTA Macon, GA Army Reserve Center/Land	Macon, GA	2010	30%			
69617	GTA Michigan City, IN Army Reserve Center/ Land	Michigan City, IN	2010	30%			
69563	Concord, CA (Fairfield) Army Reserve Center	Concord, CA	2010	30%			
69430	GTA Chester/Newtown Square Army Reserve Center	James W Reese USARC, PA	2010	30%			
69421	GTA Rio Grande City, TX Army Reserve Center/ Land	Rio Grand, TX	2010	30%			
67466	Greensboro NC Army Reserve Center/Land	Greensboro, NC	2010	30%			
67713	Homewood IL Add/Alt Army Reserve Center	Homewood, IL	2010	30%			

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Army							
71698	Devens AUTOMATED RECORD FIRE (ARF) RANGE	Devens Reserve Forces Training Area, Ayer, MA	2010	30%			
72286	Camp Park TASS Training Center (TTC)	Camp Parks	2010	30%			
67656	NCO Academy Phase II	Fort McCoy	2010	30%			
67665	Annual Training/ Mobilization Barracks	Fort McCoy	2010	30%			
72103	ECS Warehouse	Fort Hunter Liggett	2010	30%			
71303	GTA Cape Coral, FL (Ft. Meyers) Army Reserve Center/Land	Cape Coral, FL / Ft. Meyers	2010	30%			
69608	GTA Orlando Army Reserve Center	Orlando, FL	2010	30%			
72097	ECS Tac Equip Maint Fac	Fort Hunter Liggett	2010	30%			
78179	Ft. Gordon RTS-MED Training Classroom	Austin USARC	2010	30%			
74209	Belton, MO - Army Reserve Center/Land	Independence, MO	2010	30%			
74211	Ft. Hill, VA Army Reserve Center/Land	Ft. Hill, VA	2010	30%			
69582	GTA Las Cruces, NM Army Reserve Center/ Land	La Cruces, NM	2010	30%			
70627	GTA Quincy, IL Army Reserve Center/Land	Quincy, IL	2010	30%			
76184	KAFB - 076184, READY BUILDING	Kirtland Air Force Base	2010	30%			
64564	Access Control Building	Fort Riley	2010	0%	yes		

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Army							
73299	CAP 073299 Trainee Barracks FY11	Fort Jackson	2010	0%	yes		
71119	071119 Training Aids Center FY11	Fort Jackson	2010	0%	yes		
70621	GTA San Marcos, TX Army Reserve Center	San Marcos Memorial USARC	2010	30%			
69599	GTA Binghamton, NY (Utica) Army Reserve Center/Land	Binghamton, NY (Utica)	2010	30%			
70641	GTA Roanoke, VA Army Reserve Center/Land	Roanoke, VA	2010	30%			
74220	Tallahassee, FL Army Reserve Center/Land	Tallahassee, FL	2010	30%			
67672	Orangeburg, SC Army Reserve Center/Land	Orangeburg, SC	2010	30%			

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Navy							
P702	Specialized SERE Training Area	SPOKANE, WASHINGTON	2009	TBD	YES	2011	TBD
P129	Public Works Shops Consolidation	SAN DIEGO, CALIFORNIA	2007	TBD	YES	2011	TBD

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Navy							
P049	Reserve Training Center, Alameda, CA	ALAMEDA, CALIFORNIA	2008	TBD	YES	2011	TBD
P898	Reception Airfield Facilities	ROTA, SPAIN	2009	TBD	YES	2012	TBD
P004	APCSS Conference & Technology Learning Center	PEARL HARBOR, HAWAII	2008	TBD	YES	2011	TBD
P016	E-2D Training Facility	NORFOLK, VIRGINIA	2008	TBD	YES	2012	TBD
P838	E-2D Facility Upgrades for E-2D Program	NORFOLK, VIRGINIA	2007	TBD	YES	2012	TBD
P1003	Military Working Dog Relocation, Apra Harbor	AGANA, GUAM	2008	TBD	YES	2011	TBD
P465	Consolidated SLC Training & CSS-15 HQ Fac.	APRA, GUAM	2008	TBD	YES	2012	TBD
P528	Torpedo Exercise Support Building	AGANA, GUAM	2008	TBD	YES	2012	TBD
P851	Naval Construction Div Operations Facility	NORFOLK, VIRGINIA	2009	TBD	YES	2011	TBD
P273	T-6B JPATS Training Ops Paraloft Facility	MILTON, FLORIDA	2008	TBD	YES	2011	TBD
P906F	F-35 POL Operations Facility	EGLIN A.F.B., FLORIDA	2008	TBD	YES	2011	TBD
P925	BEQ, EOD School Phase 2	EGLIN A.F.B., FLORIDA	2009	TBD	YES	2012	TBD
P837	C-40 Hangar	VIRGINIA BEACH, VIRGINIA	2008	TBD	YES	2012	TBD
P600	Reserve Center move to Luke AFB, NOSC Phoenix	PHOENIX, ARIZONA	2009	TBD	YES	2011	TBD

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Navy							
P237	Fire Station	DJIBOUTI, DJIBOUTI	2008	TBD	YES	2012	TBD
P451	Officer Training Command (OTC) Quarters	NEWPORT, RHODE ISLAND	2008	TBD	YES	2013	TBD
P105	Reserve Training Center	SAN ANTONIO, TEXAS	2009	TBD	YES	2011	TBD
P437	Operational Facilities for T-6	CORPUS CHRISTI, TEXAS	2007	TBD	YES	2012	TBD
P630	P-8A (MMA) Facilities Modification	JACKSONVILLE, FLORIDA	2008	TBD	YES	2012	TBD
P724	Corry 'A' School BEQ	PENSACOLA, FLORIDA	2008	TBD	YES	2012	TBD
P782	Simulator Addition for UMFO Program	PENSACOLA, FLORIDA	2008	TBD	YES	2011	TBD
P048	Reserve Training Center, Joliet, IL	CHICAGO, ILLINOIS	2008	TBD	YES	2011	TBD
P006	Port Operations Facility	JACKSONVILLE, FLORIDA	2008	TBD	YES	2011	TBD
P107	Aviation Transmitter/ Receiver Site	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2011	TBD
P101	Maint. Shop - Wheeled	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2012	TBD
P103	Maint. Sunshades - Wheeled	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2011	TBD
P107	Comm./Elect. Maint./ Storage	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2011	TBD
P114	Dining Facility - North Mainside	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2012	TBD
P116	Bachelor Enlisted Quarters	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2011	TBD

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Navy							
P121	Maint. Shop - Tracked	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2012	TBD
P126	Station Comm. Facility and Infrastructure	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2012	TBD
P127	Sub-Station and Electrical Upgrades	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2012	TBD
P129	Elec. Power Plant/Co-Gen/Gas Turbine - N	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2012	TBD
P130	Water Improvements and Storage Tank	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2011	TBD
P131	Sewage System Improvements and Lift Station	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2011	TBD
P132	HTHW/Chilled Water System	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2012	TBD
P133	Natural Gas System Extension	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2011	TBD
P143	Construct Roads - North Mainside	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2011	TBD
P146	Industrial Waste Water Pretreatment System	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2011	TBD
P170	Bachelor Enlisted Quarters	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2012	TBD
P171	Laydown Site Work - North Mainside	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2011	TBD
P173	Consolidated Armory, Tanks	TWENTYNINE PALMS, CALIFORNIA	2008	TBD	YES	2012	TBD
P550	Fire Station - Renovation - MWTC	BRIDGEPORT, CALIFORNIA	2009	TBD	YES	2012	TBD

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Navy							
P196	Reserve Vehicle Maintenance Facility	GOOSE CREEK, SOUTH CAROLINA	2008	TBD	YES	2011	TBD
P1160	Physical Fitness Center	CAMP LEJEUNE, NORTH CAROLINA	2008	TBD	YES	2012	TBD
P1194	BEQ - Wallace Creek	CAMP LEJEUNE, NORTH CAROLINA	2008	TBD	YES	2012	TBD
P1195	BEQ - Wallace Creek	CAMP LEJEUNE, NORTH CAROLINA	2009	TBD	YES	2012	TBD
P1196	BEQ - Wallace Creek	CAMP LEJEUNE, NORTH CAROLINA	2009	TBD	YES	2012	TBD
P1197	BEQ - Wallace Creek	CAMP LEJEUNE, NORTH CAROLINA	2008	TBD	YES	2012	TBD
P1233	Maintenance/Ops Complex	CAMP LEJEUNE, NORTH CAROLINA	2008	TBD	YES	2012	TBD
P1247	BEQ - Wallace Creek	CAMP LEJEUNE, NORTH CAROLINA	2008	TBD	YES	2012	TBD
P1268	SOI-EAST Facilities - Camp Geiger	CAMP LEJEUNE, NORTH CAROLINA	2008	TBD	YES	2012	TBD
P1269	Field Training Fac. - Devil Dog - SOI	CAMP LEJEUNE, NORTH CAROLINA	2008	TBD	YES	2012	TBD
P1297	4th Infantry Bn Ops Complex	CAMP LEJEUNE, NORTH CAROLINA	2009	TBD	YES	2012	TBD
P1298	Road Network - Wallace Creek	CAMP LEJEUNE, NORTH CAROLINA	2008	TBD	YES	2011	TBD
P1304	MP Working Dog Kennel - Relocation	CAMP LEJEUNE, NORTH CAROLINA	2008	TBD	YES	2011	TBD
P1310	Pre-Trial Detainee Facility	CAMP LEJEUNE, NORTH CAROLINA	2008	TBD	YES	2012	TBD
P1311	Consolidated Info Tech/ Telecom Complex	CAMP LEJEUNE, NORTH CAROLINA	2008	TBD	YES	2012	TBD

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Navy							
P652	VMMT-204 Maintenance Hangar - Phase 3	CAMP LEJEUNE, NORTH CAROLINA	2008	TBD	YES	2011	TBD
P714	Gymnasium/Outdoor Pool	CAMP LEJEUNE, NORTH CAROLINA	2008	TBD	YES	2012	TBD
P447	Aircraft Maintenance Hangar Phase 1	YUMA, ARIZONA	2008	TBD	YES	2012	TBD
P1012	ANGLICO Operations Complex	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2011	TBD
P1016	Reconnaissance Bn Operations Complex	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2012	TBD
P1019	Comm/Elect Maintenance Facility	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2011	TBD
P1029	WFTBn Support Facilities	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2011	TBD
P1033	Enlisted Dining Facility - Edson Range	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2012	TBD
P1041	Expansion of SRTTP to 7.5 MGD	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2012	TBD
P1043	North Regional Tertiary Treatment Plant	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2012	TBD
P1048	Gas/Electrical Upgrades	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2012	TBD
P1067	Bachelor Enlisted Quarters	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2012	TBD
P1069	Recruit Barracks, School of Infantry	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2012	TBD
P1084	Enlisted Dining Facility	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2012	TBD
P1093	Communications Upgrades	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2012	TBD

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Navy							
P610	Recruit Marksmanship Training Facility	CAMP PENDLETON, CALIFORNIA	2008	TBD	YES	2011	TBD
P406	Aircraft Trainer	QUANTICO, VIRGINIA	2008	TBD	YES	2011	TBD
P548	Dining Facility, TBS	QUANTICO, VIRGINIA	2009	TBD	YES	2011	TBD
P565	Student Quarters, TBS, Phase 4	QUANTICO, VIRGINIA	2009	TBD	YES	2011	TBD
P614	South Mainside Electrical Substation	QUANTICO, VIRGINIA	2008	TBD	YES	2011	TBD
P620	Battalion Training Facility - MSGBN	QUANTICO, VIRGINIA	2009	TBD	YES	2011	TBD
P625	MC Information Operations Center - MCIOC	QUANTICO, VIRGINIA	2009	TBD	YES	2012	TBD
P296	Messhall Expansion	SAN DIEGO, CALIFORNIA	2008	TBD	YES	2011	TBD
P141	EMS/Fire Vehicle Facility	CHERRY POINT, NORTH CAROLINA	2008	TBD	YES	2011	TBD
P743	Navy Ord Cargo Logistic Training Complex	WILLIAMSBURG, VIRGINIA	2008	TDB	YES	2012	TDB
P913	EHW Security Force Facility	BREMERTON, WASHINGTON	2009	TDB	YES	2013	TDB
P908	Operations and Support Facilities	BAHRAIN IS, BAHRAIN	2009	TDB	YES	2013	TDB
P954	Waterfront Development, Phase 3	BAHRAIN IS, BAHRAIN	2007	TDB	YES	2013	TDB
P005	Joint POW/MIA Accounting Command (Hickam AFB)	PEARL HARBOR, HAWAII	2008	TDB	YES	2013	TDB
P110	Finegayan Site Prep and Utilites	FINEGAYAN, GUAM	2009	TDB	YES	2013	TDB

New Construction Project Information			Design	Completed New Construction			
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Navy							
P202	North Ramp Utilities, Anderson AFB	ANDERSEN AB, GUAM	2009	TDB	YES	2013	TDB
P203	North Ramp Parking, Andersen AFB	ANDERSEN AB, GUAM	2009	TDB	YES	2013	TDB
P162	Agile Chemical Facility, Phase 2	INDIAN HEAD, MARYLAND	2008	TDB	YES	2012	TDB
P203	Aviation Simulator Training Facility	ATSUGI, JAPAN	2009	TDB	YES	2012	TDB
P927	Applied Instruction Facility, EOD Course	EGLIN A.F.B., FLORIDA	2008	TDB	YES	2013	TDB
P601	Security Enclave & Vehicle Barriers	KINGS BAY, GEORGIA	2010	TDB	YES	2013	TDB
P230	Horn of Africa Joint Operations Center	DJIBOUTI, DJIBOUTI	2009	TDB	YES	2013	TDB
P232	Camp Lemonier HQ Facility	DJIBOUTI, DJIBOUTI	2009	TDB	YES	2012	TDB
P383	Controlled Industrial Facility	PORTSMOUTH, VIRGINIA	2008	TDB	YES	2013	TDB
P860	NOSC Pittsburgh	PITTSBURGH, PENNSYLVANIA	2009	TDB	YES	2012	TDB
P068	Electromagnetic Sensor Facility	NEWPORT, RHODE ISLAND	2007	TDB	YES	2012	TDB
P263	Broad Area Maritime Surveillance T & E Fac	PATUXENT RIVER, MARYLAND	2008	TDB	YES	2013	TDB
P750	Rotary Hangar	SAN DIEGO, CALIFORNIA	2009	TDB	YES	2013	TDB
P327	Berthing Pier 12 Replacement	SAN DIEGO, CALIFORNIA	2009	TDB	YES	2013	TDB

New Construction Project Information			Design	Completed New Construction			
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Navy							
P405	Bachelor Enlisted Quarters, Homeport Ashore	SAN DIEGO, CALIFORNIA	2009	TDB	YES	2013	TDB
P477	Construct Joint Air Traffic Control Facility	BELLE CHASSE, LOUISIANA	2009	TDB	YES	2012	TDB
P060	Marine Corps Reserve Center	YAKIMA, WASHINGTON	2009	TDB	YES	2012	TDB
P152	Parking Apron/ Taxiway Expansion	SAN DIEGO, CALIFORNIA	2009	TDB	YES	2013	TDB
P185	Hangar 4	SAN DIEGO, CALIFORNIA	2009	TDB	YES	2014	TDB
P192	Aircraft Maintenance Hangar	SAN DIEGO, CALIFORNIA	2009	TDB	YES	2013	TDB
P005	Paint and Blast Facility	JACKSONVILLE, FLORIDA	2009	TDB	YES	2013	TDB
P022	Consolidated Warehouse Facility	JACKSONVILLE, FLORIDA	2009	TDB	YES	2012	TDB
P109	CNATT/FRS - Aviation Training and BEQ	CAMP PENDLETON, CALIFORNIA	2009	TDB	YES	2013	TDB
P111	MALS-39 Maintenance Hangar Expansion	CAMP PENDLETON, CALIFORNIA	2009	TDB	YES	2013	TDB
P092	Tank Vehicle Maintenance Facility	TWENTYNINE PALMS, CALIFORNIA	2009	TDB	YES	2012	TDB
P163	BEQ and Parking Structure	TWENTYNINE PALMS, CALIFORNIA	2009	TDB	YES	2013	TDB
P202	Commissary - MWTC	BRIDGEPORT, CALIFORNIA	2009	TDB	YES	2012	TDB
P004	Motor Transportation/ Comm. Maint. Fac.	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2012	TDB

New Construction Project Information			Design	Completed New Construction			
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Navy							
P1034	2nd Intel Bn Maintenance/Operations Complex	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P1240	Maintenance/Ops Complex - 2nd ANGLICO	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P1246	EOD Addn - 2nd Marine Logistics Group	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2012	TDB
P1249	BEQ - Wallace Creek North	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P1251	BEQ - Courthouse Bay	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P1254	BEQ - Courthouse Bay	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P1256	Mess Hall Addition - Courthouse Bay	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2012	TDB
P1264	Utility Expansion - Hadnot Point	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P1265	Utility Expansion - French Creek	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P1267	Mess Hall - French Creek	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P1286	BEQ - Rifle Range	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P1317	BEQ - French Creek	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P1319	BEQ - Camp Johnson	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P1322	BEQ - Wallace Creek	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB

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Navy							
P1323	Armory - II MEF - Wallace Creek	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2012	TDB
P683	Hangar	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P687	Maintenance Hangar (HMLA)	CAMP LEJEUNE, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P447A	Aircraft Maintenance Hangar	YUMA, ARIZONA	2009	TDB	YES	2012	TDB
P460	Aircraft Maintenance Hangar	YUMA, ARIZONA	2009	TDB	YES	2012	TDB
P533	Simulator Facility	YUMA, ARIZONA	2009	TDB	YES	2013	TDB
P546	Utilities Infrastructure Upgrades	YUMA, ARIZONA	2009	TDB	YES	2012	TDB
P573	Intermediate Maintenance Activity Facility	YUMA, ARIZONA	2009	TDB	YES	2013	TDB
P578	Van Pad Complex Relocation	YUMA, ARIZONA	2009	TDB	YES	2012	TDB
P583	Communication Infrastructure Upgrade	YUMA, ARIZONA	2009	TDB	YES	2012	TDB
P420	Physical Fitness Center	BEAUFORT, SOUTH CAROLINA	2009	TDB	YES	2012	TDB
P444	Training and Simulator Facility	BEAUFORT, SOUTH CAROLINA	2009	TDB	YES	2013	TDB
P454	Aircraft Hangar - VMFAT-502	BEAUFORT, SOUTH CAROLINA	2009	TDB	YES	2013	TDB
P1014	Truck Company Operations Complex	CAMP PENDLETON, CALIFORNIA	2009	TDB	YES	2013	TDB
P1044	Conveyance/Water Treatment	CAMP PENDLETON, CALIFORNIA	2009	TDB	YES	2013	TDB

New Construction Project Information			Design	Completed New Construction			
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Navy							
P1109	BEQ - Las Flores	CAMP PENDLETON, CALIFORNIA	2009	TDB	YES	2013	TDB
P1113	BEQ - 13 Area	CAMP PENDLETON, CALIFORNIA	2009	TDB	YES	2013	TDB
P310	Small Arms Magazine - Edson Range	CAMP PENDLETON, CALIFORNIA	2009	TDB	YES	2012	TDB
P006	Physical Fitness Center - Camp Smith	KANEOHE, HAWAII	2009	TDB	YES	2012	TDB
P816	Waterfront Operations Facility	KANEOHE, HAWAII	2009	TDB	YES	2013	TDB
P858	BEQ - Marine Corps Base Hawaii	KANEOHE, HAWAII	2009	TDB	YES	2013	TDB
P566	Student Officer Quarters - The Basic School	QUANTICO, VIRGINIA	2009	TDB	YES	2013	TDB
P599	BEQ	QUANTICO, VIRGINIA	2010	TDB	YES	2013	TDB
P136	BEQ	CHERRY POINT, NORTH CAROLINA	2009	TDB	YES	2013	TDB
P219	General Warehouse	DJIBOUTI, DJIBOUTI	2009	NA	NO	2012	NA

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DECA							
	New Commissary	Saratoga Springs, NY	2007	Unknown - 30% goal	Yes	2009	TBD
	New Commissary	Fort Bliss, TX	2007	Unknown - 30% goal	Yes	2011	TBD
	New Commissary	Keesler AFB, MS	2007	Unknown - 30% goal	YES	2010	TBD
	New Commissary	Ansbach, GE	2008	Unknown - 30% goal	Yes	2013	TBD
	New Commissary	Spangdahlem, GE	2008	Unknown - 30% goal	Yes	2015	TBD
	New Commissary	K-16, Korea	2008	Unknown - 30% goal	Yes	2012	TBD
	New Commissary	Fort Campbell, KY	2009	Unknown - 30% goal	Yes	2012	TBD
	New Commissary	Fort Carson, CO	2009	Unknown - 30% goal	Yes	2012	TBD
	New Commissary	Chinhae, Korea	2009	Unknown - 30% goal	Yes	2013	TBD
	New Commissary	Portsmouth NNSY, VA	2009	Unknown - 30% goal	Yes	2013	TBD
	New Commissary	Annapolis NSA, MD	2010	Unknown - 30% goal	Yes	2013	TBD
	New Commissary	New London NSB, CT	2010	Unknown - 30% goal	Yes	2013	TBD
	New Commissary	Mitchel Field, NY	2010	Unknown - 30% goal	Yes	2013	TBD
	New Commissary	Coraopolis, PA	2010	Unknown - 30% goal	Yes	2013	TBD
	New Commissary	U.S. Southern Command	2010	Unknown - 30% goal	Yes	on hold	TBD
	New Commissary	Gunter Annex, Maxwell AFB, AL	2011	Unknown - 30% goal	Yes	2013	TBD
DIA							
MILCON - DIA 06 001	Joint Use Intel Analysis Facility	Rivanna Station, Charlottesville, VA	2008	33%	N/A	2011	TBD
MILCON - DIA 06 002	National Center for Medical Intelligence - ADDITION	Ft Detrick, Frederick, MD	2008	33%	N/A	2011	TBD
MILCON - DIA 06 003	Military Department Intelligence Activities	MCAS Quantico VA	2008	33%	N/A	2011	TBD
DLA							
CSC-07765	Child Development Center Expansion	Columbus, OH	2009	21%	Yes		

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DLA							
CSC-09252	Bldg 114 Community Center Replacement	Columbus, OH	2010	32%			
CSC-05836	Public Safety Facility MCP	Columbus, OH	2010	30% (estimated)			
DDCX-1002	General Purpose Warehouse	Tracy, CA	2007	Unknown - 30% goal	YES	2011	TBD
	Child Development Center	Tracy, CA	2010	34%		2011	TBD
SCR-	Child Development Center Expansion	Richmond, VA	2010	0%	Yes	2013	NA
430	DLA Headquarters Building	Susquehanna, PA	2009	35%		2013	
760	BRAC Warehouse	Susquehanna, PA	2009	20%	yes	2011	
765	BRAC Warehouse	Susquehanna, PA	2009	20%	yes	2011	
789	Recycling Center Building	Susquehanna, PA	2009	20%	yes	2011	
753	Central Heating Plant	Susquehanna, PA	2009	30%	yes	2011	
NGA							
	New Campus East	Ft. Belvoir - North Area (Springfield, VA)	2007	30%	N/A	2011	0%
NSA							
21078	Utah Data Center	Camp Williams, UT	FY2011	30%		2015	
	Denver Security Operations Center	Aurora, CO	FY2011	30%		2014	
WHS							
	Pentagon Emergency Response Center	Arlington, VA	2009	35%		FY 2011	
	Pentagon Athletic Center Phase II	Arlington, VA	2009	21%		FY 2011	

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TMA							
P005V	Walter Reed National Military Medical Center - Building A	Bethesda, Md	2008	30%		2011	TBD
P005V	Walter Reed National Military Medical Center - Building B	Bethesda, Md	2008	30%		2011	TBD
	National Intrepid Center of Excellence	Bethesda, Md	2008	30%		2010	TBD
	Patient Parking Garage	Bethesda, Md	2008	30%		2010	TBD
	Tranquility Hall - BRAC RFP 2	Bethesda, Md	2009	30%		2011	TBD
	Building 17 Complex - BRAC RFP 2	Bethesda, Md	2009	30%		2011	TBD
	NEX Expansion	Bethesda, Md	2009	30%		2012	TBD
	New Visitor's Center - Traffic Mitigation Project	Bethesda, Md	2009	30%		2012	TBD
	Drive-Thru Pharmacy	Bethesda, Md	2009	30%		2011	TBD
	Fisher Houses (3)	Bethesda, Md	2009	30%		2011	TBD
	Building 226 Warehouse - BRAC RFP 2	Bethesda, Md	2010	30%		2010	TBD
P933	Navy Enviro Preventative Med Unit 2	Norfolk, VA	2007	21%	Yes	2010	TBD
N40085-09-R-2861	24 Hour Child Development Center	Portsmount, VA	2009	50%		2010	TBD
P008	NAVHOSP Central Utility Plant	NH Guam, Guam	2007	31%			
P008A	NAVHOSP Guam Replace	NH Guam, Guam	2009	30%			
P1857	NAVHOSP Outpatient Clinic Addition	MCB Camp Lejeune, NC	2009	30%			

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TMA							
P112	NAVHOSP Camp Pendleton Replace	MCB Camp Pendleton, CA	2009	30%			
151694	NCMI Addition	Fort Detrick, MD	2008	20%	Yes		0%
64931	Armed forces Reserve Center	Fort Detrick, MD	2007	30%			
64273	Naval Medical Bio-Defense Research Laboratory	Fort Detrick, MD	2008	30%			
66606	National Museum of Health and Medicine (AFIP, Forest Glen)	Fort Detrick, MD	2008	30%			
64275	Medical Administration Building (CBMS and Navy)	Fort Detrick, MD	2008	30%			
58625	SATCOM (WSOC)	Fort Detrick, MD	2008	30%			
58625	Satellite Earth Terminal Station (SETS)	Fort Detrick, MD	2008	30%			
61401	Nallin Boundary Gate	Fort Detrick, MD	2009	30%			
61536	Emergency Services Center	Fort Detrick, MD	2009	30%			
67948	NIBC Truck Inspection and Road	Fort Detrick, MD	2009	30%			
62886	Information Svs Fac (NEC) Expansion	Fort Detrick, MD	2009	30%			

Total new building designs started since beginning of FY 2007	**981**
Total new building designs started since beginning of FY 2007 expected to be 30% more energy efficient than relevant code, where life-cycle cost effective:	**979**

APPENDIX H
FY2009 ENERGY RENEWABLE ENERGY POTENTIAL

						(G)reen = Compatible (A)mber = Limited Compatibility (R)ed = Not Compatible NE = Not Evaluated					(G)reen = Favorable (A)mber = Limited (R)ed = Not Favorable NA= Data Not Available									
DoD Component	Installation	ST	FY2009 Energy Consumption (MMBTU)	On-Site Energy Production (MMBTU)	On site Renewable Energy Production (MMBTU)	Mission Compatibility					Resource Abundance/Economic Environment					Estimated Renewable Annual Production (MMBTU)				
						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
AF	ALTUS AFB	OK	218,139	-	3	NE	A	NE	NE	NE	A	A	R	A	N/A		372			
AF	ANDERSEN AFB	Guam	427,683	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	ANDREWS AFB	MD	565,358	-	-	NE	NE	NE	NE	NE	A	A	A	R	N/A					
AF	ARNOLD AFB	TN	1,892,084	411,006	-	NE	NE	NE	NE	NE	R	R	R	R	N/A					
AF	ASCENSION AAS	Ascension	-	-	8,690	A	G	NE	NE	NE	N/A	N/A	N/A	N/A	N/A	280	11,870			
AF	AVIANO AIR BASE	Italy	361,828	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	BARKSDALE AFB	LA	401,393	-	396	NE	NE	NE	NE	NE	R	R	A	A	N/A					
AF	BEALE AFB	CA	255,108	-	-	NE	NE	A	NE	NE	G	G	G	G	N/A			95,645		
AF	BOLLING AFB	DC	179,673	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	BUCKLEY AFB	CO	667,005	-	82	G	NE	NE	NE	NE	G	G	R	G	N/A	6,875				
AF	BUCKLEY ANNEX	CO	105,260	-	-	NE	NE	NE	NE	NE	G	G	R	G	N/A					
AF	CANNON AFB	NM	234,386	-	-	NE	NE	NE	NE	NE	G	G	R	G	N/A					
AF	CAPE CANAVERAL	FL	489,613	-	7	NE	NE	NE	NE	NE	A	R	G	R	N/A					
AF	CHARLESTON AFB	SC	307,390	-	248,448	NE	NE	NE	NE	G	R	R	A	R	N/A					248,377
AF	CHEYENNE MOUNTAIN AFS	CO	116,469	-	-	A	NE	NE	NE	NE	G	G	R	G	N/A	7,472				
AF	CLEAR AIR FORCE STATION	AK	846,737	853,103	-	NE	NE	NE	NE	NE	R	A	R	A	N/A					
AF	COLUMBUS AFB	MS	162,639	-	-	NE	NE	NE	NE	NE	R	R	A	A	N/A					
AF	CONSOLIDATED AIR NATIONAL GUARD	N/A	4,138,073	-	6,176	A	A	NE	NE	G	N/A	N/A	N/A	N/A	N/A	39,071	35,120			1,239
AF	CREECH AFB	NV	66,341	-	-	NE	NE	NE	NE	NE	G	G	R	G	N/A					
AF	DAVIS MONTHAN AFB	AZ	360,449	7,629	4,903	A	NE	A	NE	NE	G	A	R	G	N/A	99,682		188,301		
AF	DOBBINS AIR RESERVE BASE	GA	103,491	-	-	NE	NE	NE	NE	NE	A	R	A	R	N/A					
AF	DOVER AFB	DE	489,998	565,567	-	NE	NE	NE	NE	NE	A	R	G	R	N/A					
AF	DYESS AFB	TX	292,223	-	1,211	NE	NE	A	NE	NE	A	G	A	G	N/A			145,262		
AF	EARECKSON AS (ARWS)	AK	451,500	150,360	-	NE	A	NE	NE	NE	R	A	R	A	N/A		20,926			
AF	EDWARDS AFB	CA	1,000,319	-	-	A	NE	NE	NE	NE	G	G	G	G	N/A	24,061				
AF	EGLIN AFB	FL	1,163,702	-	7	A	NE	A	NE	NE	A	R	G	R	N/A	6,875		672,505		
AF	EIELSON AFB	AK	2,585,726	2,735,147	188	NE	A	NE	NE	NE	R	A	R	A	N/A		7,848			

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DoD Component	Installation	ST	FY2009 Energy Consumption (MMBTU)	On-Site Energy Production (MMBTU)	On site Renewable Energy Production (MMBTU)	Mission Compatibility					Resource Abundance/Economic Environment					Estimated Renewable Annual Production (MMBTU)				
						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
AF	ELLSWORTH AFB	SD	680,220	-	-	NE	NE	NE	NE	NE	A	A	R	A	N/A					
AF	ELMENDORF AFB	AK	1,311,787	-	-	NE	NE	NE	NE	NE	R	A	R	A	N/A					
AF	F E WARREN AFB	WY	456,475	162,359	16,739	NE	G	NE	NE	NE	R	A	R	A	N/A		48,123			
AF	FAIRCHILD AFB	WA	531,787	-	-	NE	NE	NE	NE	NE	A	A	G	G	N/A					
AF	GOODFELLOW AFB	TX	208,303	-	10	A	NE	A	NE	NE	A	G	A	G	N/A	6,875		161,401		
AF	GRAND FORKS AFB	ND	689,681	-	-	NE	NE	NE	NE	NE	A	G	A	A	N/A					
AF	GRISSOM ARB	IN	119,723	-	-	NE	NE	NE	NE	NE	R	R	A	R	N/A					
AF	GUNTER AFB	AL	303,028	-	-	NE	NE	NE	NE	NE	R	R	A	R	N/A					
AF	HICKAM AFB	HI	325,638	-	420	NE	NE	NE	NE	NE	G	G	R	G	N/A					
AF	HILL AFB	UT	2,531,888	693,237	33,953	NE	NE	G	NE	NE	A	R	R	G	N/A			38,856		
AF	HOLLOMAN AFB	NM	460,239	-	-	NE	NE	NE	A	NE	G	G	R	G	N/A				134,501	
AF	HOMESTEAD AFRC	FL	70,979	-	3	NE	NE	NE	NE	NE	A	R	G	R	N/A					
AF	HURLBURT FIELD	FL	502,643	-	-	NE	NE	NE	NE	NE	A	R	G	R	N/A					
AF	INCIRLIK AB	Turkey	344,055	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	IZMIR AIR STATION	Turkey	14,092	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	KADENA AIR BASE	Japan	1,425,501	-	10	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	KEESLER AFB	MS	667,396	-	-	NE	NE	NE	NE	NE	R	R	A	A	N/A					
AF	KIRTLAND AFB	NM	692,528	-	-	NE	A	NE	NE	NE	G	G	R	G	N/A		313,836			
AF	KUNSAN AIR BASE	South Korea	362,068	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	L G HANSCOM AFB	MA	522,301	516,156	-	NE	NE	NE	NE	NE	A	A	R	R	N/A					
AF	LACKLAND AFB	TX	1,319,182	-	7	A	NE	NE	NE	NE	A	G	A	G	N/A					
AF	LAJES FIELD	Portugal	111,767	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	LANGLEY AFB	VA	690,532	-	-	NE	NE	NE	NE	NE	A	A	G	R	N/A					
AF	LAUGHLIN AFB	TX	166,955	-	775	NE	NE	NE	NE	NE	A	G	A	G	N/A					
AF	LITTLEROCK AFB	AR	386,570	-	3	NE	NE	NE	NE	NE	R	R	A	A	N/A					
AF	LOS ANGELES AFB	CA	106,878	-	256	A	NE	NE	NE	NE	G	G	G	G	N/A	4,647				
AF	LUKE AFB	AZ	307,105	-	1,484	A	NE	NE	NE	NE	G	A	R	G	N/A	115,687				
AF	MACDILLAFB	FL	536,149	-	-	NE	NE	NE	NE	NE	A	R	G	R	N/A					
AF	MALMSTROM AFB	MT	509,224	203,676	-	NE	NE	NE	NE	NE	A	G	A	G	N/A					
AF	MARCH AIR RESERVE BASE	CA	180,151	-	2,259	A	NE	NE	NE	NE	G	G	G	G	N/A	2,774				

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
AF	MAXWELL AFB	AL	516,628	-	-	NE	NE	NE	NE	NE	R	R	A	R	N/A					
AF	MCCHORD AFB	WA	540,471	229,949	-	NE	NE	NE	NE	NE	A	A	G	G	N/A					
AF	MCCONNELL AFB	KS	358,917	-	-	NE	A	NE	NE	G	A	G	G	A	N/A		62,767			
AF	MCGUIRE AFB	NJ	815,377	346,338	225	A	NE	NE	NE	NE	A	A	R	R	N/A	35,208				
AF	MINN-ST PAUL IAP	MN	80,243	-	-	NE	NE	NE	NE	NE	A	G	G	R	N/A					
AF	MINOT AFB	ND	861,018	-	-	NE	NE	NE	NE	G	A	G	A	A	N/A					5,169
AF	MISAWA AIR BASE	Japan	1,315,633	837,639	7	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	MOLOKAI AFS	HI	2,727	-	-	NE	NE	NE	NE	NE	G	G	R	G	N/A					
AF	MOODY AFB	GA	230,443	-	-	NE	NE	NE	NE	NE	A	R	A	R	N/A					
AF	MORON AB	Spain	27,793	-	-	A	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A	6,575				
AF	MT HOME AFB	ID	529,528	-	-	A	NE	NE	A	NE	R	R	R	A	N/A	580			134,501	
AF	NELLIS AFB	NV	445,131	-	108,406	A	NE	NE	A	G	G	G	R	G	N/A	213,230			134,501	
AF	NEW BOSTON	NH	32,102	-	-	NE	NE	NE	NE	NE	A	R	R	R	N/A					
AF	NIAGARA FALLS AFRB	NY	85,345	-	-	NE	NE	NE	NE	NE	A	G	A	R	N/A					
AF	OFFUTT AFB	NE	944,470	-	49,733	NE	NE	NE	NE	G	A	A	A	A	N/A					
AF	ONIZUKA AFB	CA	117,408	-	-	NE	NE	NE	NE	NE	G	G	G	G	N/A					
AF	OSAN AFB	South Korea	688,853	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	PATRICK AFB	FL	289,119	-	-	NE	NE	NE	NE	NE	A	R	G	R	N/A					
AF	PETERSON AFB	CO	589,787	-	307	NE	NE	NE	NE	NE	G	G	R	G	N/A					
AF	PILLAR POINT AFS	CA	4,909	-	-	NE	NE	NE	NE	NE	G	G	G	G	N/A					
AF	PITTSBURGH IAP	PA	54,831	-	-	NE	NE	NE	NE	NE	A	G	G	R	N/A					
AF	POPE AFB	NC	174,376	-	-	NE	NE	NE	NE	NE	A	A	G	R	N/A					
AF	RAF ALCONBURY	United Kingdom	166,299	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	RAF CROUGHTON	United Kingdom	148,077	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	RAF FAIRFORD	United Kingdom	65,773	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	RAF LAKENHEATH	United Kingdom	782,457	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	RAF MILDENHALL	United Kingdom	327,742	-	317	A	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A	317				
AF	RAMSTEIN AIR BASE	Germany	1,327,036	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	RANDOLPH AIR FORCE BASE	TX	347,802	-	-	NE	NE	NE	NE	NE	A	G	A	G	N/A					
AF	ROBINS AFB	GA	2,024,158	383,169	-	NE	NE	A	NE	NE	A	R	A	R	N/A			618,705		
AF	SANTA YNEZ PEAK	CA	332	-	-	NE	NE	NE	NE	NE	G	G	G	G	N/A					

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DoD Component	Installation	ST	FY2009 Energy Consumption (MMBTU)	On-Site Energy Production (MMBTU)	On site Renewable Energy Production (MMBTU)	Mission Compatibility					Resource Abundance/Economic Environment					Estimated Renewable Annual Production (MMBTU)				
						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
AF	SCHRIEVER AFB	CO	462,232	37,795	14	A	NE	NE	NE	NE	G	G	R	G	N/A	137,490				
AF	SCOTT AFB	IL	614,911	-	-	NE	NE	NE	NE	NE	A	G	G	R	N/A					
AF	SEYMOUR JOHNSON AFB	NC	383,337	-	-	NE	NE	NE	NE	NE	A	A	G	R	N/A					
AF	SHAW AFB	SC	304,115	-	-	NE	NE	NE	NE	NE	R	R	A	R	N/A					
AF	SHEPPARD AFB	TX	820,176	-	-	A	NE	NE	NE	NE	A	G	A	G	N/A	41,248				
AF	SPANGDAHLEM	Germany	527,666	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	THULE AIR BASE	Greenland	944,919	201,504	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	TINKER AFB	OK	3,155,845	1,125,659	-	NE	NE	A	NE	NE	A	A	R	A	N/A			171,342		
AF	TONOPAH RANGE	NV	187,975	-	-	NE	NE	NE	NE	NE	G	G	R	G	N/A					
AF	TRAVIS AFB	CA	571,195	-	-	A	NE	NE	NE	NE	G	G	G	G	N/A	34,372				
AF	TYNDALL AFB	FL	362,357	-	-	NE	NE	NE	NE	G	A	R	G	R	N/A					17,633
AF	U S A F ACADEMY	CO	952,539	-	-	A	NE	NE	NE	NE	G	G	R	G	N/A	46,113				
AF	VANCE AFB	OK	122,267	-	-	NE	NE	NE	NE	NE	A	A	R	A	N/A					
AF	VANDENBERG AFB	CA	1,034,537	14,945	-	NE	A	NE	NE	NE	G	G	G	G	N/A		502,137			
AF	WESTOVER ARB	MA	181,911	-	-	NE	NE	NE	NE	NE	A	A	R	R	N/A					
AF	WHITEMAN AFB	MO	659,444	-	5,603	NE	NE	NE	NE	G	A	A	G	R	N/A					49,720
AF	WILFORD HALL	TX	881,066	-	-	NE	NE	NE	NE	NE	A	G	A	G	N/A					
AF	WRIGHT-PATTERSON AFB	OH	3,189,972	1,213,997	-	NE	NE	NE	NE	NE	A	R	G	R	N/A					
AF	YOKOTA AB	Japan	1,422,783	568,369	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
AF	YOUNGSTOWN JOINT AIR RESERVE STATION	OH	80,155	-	-	NE	NE	NE	NE	NE	A	R	G	R	N/A					
	Total AF															829,433	1,002,998	2,092,018	403,503	322,137
Army	ANNISTON ARMY DEPOT	AL	995,648	584,338	-	G	A	A	A	G	R	R	A	R	N/A	26,300	40,303	26,300		26,300
Army	REDSTONE ARSENAL	AL	1,798,074	932,852	-	G	A	A	A	G	R	R	A	R	N/A	56,900	89,540	56,900		56,900
Army	FORT RUCKER	AL	605,473	187,493	-	G	A	A	A	G	R	R	A	R	N/A	29,200	145,506	29,200		4,177
Army	81ST RSC	AL	260,383	107,426	-	A	A	A	A	G	R	R	A	R	N/A	3,495	3,055			3,813
Army	FORT MCCLELLAN ARNG	AL	-	-	-	A	A	A	A	G	R	R	A	A	N/A	40,659	48,614			-
Army	FORT GREELY	AK	249,132	183,441	-	A	A	A	A	G	R	A	R	A	N/A	1,926	5,199		55,032	852
Army	FORT RICHARDSON	AK	1,045,692	795,412	-	A	A	A	A	G	R	A	R	A	N/A	67,735	133,629			6,544
Army	FORT WAINWRIGHT	AK	3,379,135	3,345,772	-	A	A	A	A	G	G	A	R	G	N/A	6,268	9,628	4,365		16,621
Army	FORT HUACHUCA	Arizona	637,850	238,971	2,075	A	A	A	A	G	G	A	N/A	G	N/A	105,135	343,173	45,828	17,458	4,166
Army	YUMA PROVING GROUND	Arizona	168,987	7,528	3,184	A	A	A	A	G	R	A	N/A	A	N/A	57,767	1,733		109,115	1,305
Army	PINE BLUFF ARSENAL	AR	885,852	663,014	-	A	A	A	A	G	R	R	A	A	N/A	30,840	40,561			2,765

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
Army	90TH RSC	AR	181,060	51,779	-	A	A	A	A	G	G	R	A	G	N/A	-	-			-
Army	FORT HUNTER LIGGETT	CA	81,405	38,475	-	A	A	A	A	G	G	G	G	G	N/A	-	-			837
Army	FORT IRWIN	CA	468,549	126,786	1,047	A	A	A	A	G	G	G	G	G	N/A	577,667	186,009		148,396	3,253
Army	PRESIDIO OF MONTEREY	CA	195,470	109,303	-	A	A	A	A	G	G	G	G	G	N/A	5,006	3,527			2,141
Army	63RD RSC	CA	78,458	29,554	-	A	A	A	A	G	G	G	G	G	N/A	8,374	8,260			3,792
Army	PARKS CSTC	CA	51,420	25,291	-	A	A	A	A	G	G	G	G	G	N/A	454,045	447,878			841
Army	SIERRA ARMY DEPOT	CA	164,305	120,962	-	G	G	A	G	G	G	G	G	G	N/A	538,004	73,630		508,115	3,874
Army	FORT CARSON	CA	1,199,747	739,936	-	G	A	A	A	G	A	G	G	R	N/A	1,320,497	68,165	23,107	87,292	8,458
Army	FORT MCNAIR	VA	163,552	66,921	-	A	A	A	A	G	N/A	A	G	N/A	N/A	-	-			1,154
Army	WALTER REED AMC	DC	959,462	592,054	-	G	A	A	A	G	A	N/A	N/A	R	N/A	184	243			3,320
Army	FORT BENNING	GA	1,334,904	465,547	-	A	A	A	A	G	A	R	A	R	N/A	1,386	1,348	58,049		11,211
Army	FORT GORDON	GA	903,966	229,796	-	A	A	A	A	G	A	R	A	R	N/A	1,500	10,000			50,000
Army	FORT MCPHERSON	GA	554,281	253,607	9	A	A	A	A	G	A	R	A	R	N/A	4,922	4,517			18,773
Army	FORT STEWART	GA	1,286,691	502,139	-	A	A	A	A	G	G	R	A	G	N/A	682,681	612,189			9,349
Army	USAG HAWAII	HI	818,768	40,412	-	A	A	A	A	G	A	G	R	R	N/A	26,574	1,733			9,842
Army	ROCK ISLAND ARSENAL	IL	867,019	612,381	-	A	A	A	A	G	R	G	G	R	N/A	1,326	3,402			4,861
Army	NEWPORT CHEMICAL DEPOT	IN	82,740	13,814	71,266	A	A	A	A	G	A	R	A	R	N/A	15,079	22,536			466
Army	IOWA AAP (GOCO)	IA	750,252	677,242	-	A	A	A	A	G	A	G	G	A	N/A	41,383	71,437			3,016
Army	FORT LEAVENWORTH	KS	481,609	205,513	-	A	A	A	A	G	A	G	G	A	N/A	1,155	12,131			2,931
Army	FORT RILEY	KS	1,193,725	638,811	-	A	A	A	A	G	A	G	G	A	N/A	13,450	20,796			8,621
Army	89TH RSC	KS	356,862	269,484	-	A	A	A	A	G	R	G	G	R	N/A	-	-			-
Army	BLUE GRASS ARMY DEPOT	KY	179,232	116,117	-	A	A	A	A	G	R	R	A	R	N/A	34,944	49,354			3,117
Army	FORT CAMPBELL	KY	1,570,476	769,721	-	A	A	A	A	G	R	R	A	R	N/A	220,783	286,558			11,730
Army	FORT KNOX	KY	938,863	938,243	620	A	A	A	A	G	R	R	A	A	N/A	220,783	275,096			8,746
Army	FORT POLK	LA	753,847	145,811	92,412	A	A	A	A	G	A	R	A	R	N/A	454,773	523,362			6,047
Army	ABERDEEN PG	MD	2,438,142	1,492,284	-	A	A	A	A	G	A	A	A	R	N/A	145,790	186,564			10,695
Army	FORT DETRICK	MD	1,178,176	1,178,176	-	A	A	A	A	G	A	A	A	R	N/A	2,701	3,366			2,590
Army	ADELPHI LABORATORY CTR	MD	275,191	43,552	96,609	A	A	A	A	G	A	A	A	R	N/A	1,966	6,789			888
Army	FORT GEORGE MEADE	MD	508,902	266,329	-	A	A	A	A	G	A	A	A	R	N/A	10,550	12,598			3,345
Army	94TH RSC	MA	159,804	159,804	-	A	A	A	A	G	A	A	R	R	N/A	-	-			-
Army	DEVENS RFTA	MA	103,558	74,948	-	A	A	A	A	G	A	A	R	R	N/A	-	-			952

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
Army	SOLDIER SYSTEMS CTR, NATICK	MA	122,374	85,623	-	A	A	A	A	G	A	A	R	R	N/A	-	608			755
Army	USAG DETROIT ARSENAL	MI	333,684	223,705	-	A	A	A	A	G	A	G	A	R	N/A	527	840			1,218
Army	88TH RSC	MN	1,019,109	725,506	-	A	A	A	A	G	A	G	G	R	N/A	24,242	29,890			9,461
Army	LAKE CITY AAP (GOCO)	MO	926,831	651,599	-	A	A	A	A	G	A	A	G	R	N/A	9,458	20,779			2,217
Army	FORT LEONARD WOOD	MO	1,442,099	800,640	-	A	A	A	A	G	G	A	G	G	N/A	1,386	83,184	43,646		8,195
Army	HAWTHORNE AAP (GOCO)	NV	161,697	130,061	-	G	G	G	G	G	A	G	R	R	N/A	212,581	434,699		54,557	7,271
Army	FORT DIX	NJ	505,856	308,533	-	A	A	A	A	G	A	A	R	R	N/A	50,565	83,130			4,376
Army	FORT MONMOUTH	NJ	392,335	214,710	-	A	A	A	A	G	A	A	R	R	N/A	2,278	3,954			3,798
Army	PICATINNY ARSENAL	NJ	589,900	410,586	-	G	G	A	G	G	G	A	R	G	N/A	12,367	17,427			2,389
Army	WHITE SANDS MISSILE RANGE	NM	416,942	132,156	-	A	A	A	A	G	A	G	R	R	N/A	42,747	24,262		65,469	3,153
Army	FORT DRUM	NY	1,087,188	750,318	-	A	A	A	A	G	A	G	A	R	N/A	210,155	483,701			7,798
Army	FORT HAMILTON	NY	66,077	6,601	44,317	A	A	A	A	G	A	G	A	R	N/A	369	696			482
Army	77TH RSC	NY	35,700	-	-	A	A	A	A	G	A	G	A	R	N/A	-	-			-
Army	WATERVLIET ARSENAL	NY	359,486	242,710	-	A	A	A	A	G	A	G	A	R	N/A	289	539			1,537
Army	WEST POINT MIL RESERVATION	NY	1,170,658	853,806	-	A	A	A	A	G	A	G	A	R	N/A	-	60,415			5,701
Army	FORT BRAGG	NC	3,075,103	1,440,417	-	A	A	A	A	G	A	A	G	R	N/A	110,479	11,553	15,276		2,000
Army	MOT SUNNY POINT	NC	18,783	36,779	40,000	A	A	A	A	G	A	A	G	R	N/A	26,641	35,038			251
Army	LIMA JSMC	OH	538,373	361,792	-	A	A	A	A	G	A	R	G	A	N/A	645	994			1,240
Army	MCALESTER AAP	OK	418,456	334,715	-	A	A	A	A	G	A	A	R	A	N/A	119,906	183,987			7,957
Army	FORT SILL	OK	1,090,410	502,963	6	A	A	A	A	G	A	A	R	R	N/A	270,630	740,418			10,979
Army	CARLISLE BARRACKS	PA	125,314	51,990	-	A	A	A	A	G	A	G	G	R	N/A	741	1,705			756
Army	LETTERKENNY ARMY DEPOT	PA	488,721	307,841	-	A	A	A	A	G	A	G	G	R	N/A	35,556	41,086			3,784
Army	99TH RSC	PA	50,407	29,297	-	A	A	A	A	G	A	G	G	R	N/A	13,823	31,816			6,227
Army	KELLY SUPPORT FAC	PA	15,119	7,210	-	A	A	A	A	G	A	G	G	R	N/A	-	-			170
Army	SCRANTON AAP	PA	484,735	345,689	-	A	A	A	A	G	A	G	G	R	N/A	24	40			298
Army	TOBYHANNA ARMY DEPOT	PA	595,024	353,117	-	A	A	A	A	G	R	G	G	R	N/A	2,116	5,065			3,449
Army	FORT JACKSON	SC	1,121,338	574,684	-	A	A	A	A	G	R	R	A	R	N/A	122,386	145,991			7,177
Army	HOLSTON AAP (GOCO)	TN	1,598,032	1,431,380	-	A	A	A	A	G	R	R	R	R	N/A	12,317	11,493			1,313
Army	MILAN AAP (GOCO)	TN	177,658	130,562	-	A	A	A	A	G	A	R	R	G	N/A	49,883	63,607			2,718
Army	FORT BLISS	TX	1,277,017	560,767	-	A	A	A	A	G	A	G	A	G	N/A	42,747	231,067		34,660	11,705
Army	CORPUS CHRISTI AD	TX	356,211	68,392	-	A	A	A	A	G	A	G	A	G	N/A	-	-			1,772

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DoD Component	Installation	ST	FY2009 Energy Consumption (MMBTU)	On-Site Energy Production (MMBTU)	On site Renewable Energy Production (MMBTU)	Mission Compatibility					Resource Abundance/Economic Environment					Estimated Renewable Annual Production (MMBTU)				
						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
Army	FORT HOOD	TX	1,896,797	787,443	-	A	A	A	A	G	A	G	A	G	N/A	584,721	1,291,983			15,771
Army	FORT SAM HOUSTON	TX	1,005,430	333,273	-	A	A	A	A	G	A	G	A	G	N/A	81,077	94,971			7,078
Army	RED RIVER DEPOT	TX	845,391	564,812	-	A	A	A	A	G	A	G	A	G	N/A	44,853	57,315			5,684
Army	DESERET CHEMICAL DEPOT	UT	521,080	263,881	90,281	A	A	A	A	G	A	R	R	G	N/A	63,226	51,973			1,051
Army	96TH RSC	UT	107,783	70,005	-	A	A	A	A	G	A	R	R	G	N/A	-	-			-
Army	DUGWAY PROVING GROUND	UT	292,724	163,262	-	A	A	A	A	G	A	R	R	G	N/A	1,155	1,733	436	10,911	1,712
Army	TOOELE ARMY DEPOT	UT	78,364	45,329	-	A	A	A	A	G	A	R	R	R	N/A	72,878	64,186			2,014
Army	FORT BELVOIR	VA	1,017,748	268,366	100	A	A	A	A	G	A	A	G	R	N/A	25,238	18,789			6,768
Army	FORT EUSTIS	VA	671,238	334,064	-	A	A	A	A	G	A	A	G	R	N/A	22,170	26,555			4,083
Army	FORT A P HILL	VA	95,043	51,745	-	A	A	A	A	G	A	A	G	R	N/A	165,158	162,914			913
Army	FORT LEE	VA	688,646	338,168	263	A	A	A	A	G	A	A	G	R	N/A	162,902	1,733			21,000
Army	FORT MONROE	VA	158,190	69,519	-	A	A	A	A	G	A	A	G	R	N/A	1,552	1,225			5,186
Army	FORT MYER	VA	257,504	156,301	-	A	A	A	A	G	A	A	G	R	N/A	2,804	2,213			6,559
Army	ARNGRC	VA	26,102	-	-	A	A	A	A	G	A	A	G	R	N/A	-	-			678
Army	RADFORD AAP (GOCO)	VA	3,101,691	2,894,746	-	A	A	A	A	G	A	A	G	R	N/A	13,144	14,818			8,545
Army	FORT STORY	VA	107,427	52,156	-	A	A	A	A	G	A	A	G	G	N/A	-	-			2,264
Army	70TH RSC	WA	88,085	60,895	-	A	A	A	A	G	A	A	G	G	N/A	-	-			-
Army	FORT LEWIS	WA	2,037,267	1,247,976	-	A	A	A	A	G	A	A	G	R	N/A		115,533	27,279	76,380	47,011
Army	FORT MCCOY	WI	536,268	393,670	-	A	A	A	A	G	R	A	G	R	N/A	275,152	368,846			15,784
Army	ALABAMA ARNG	AL	154,918	71,498	-	A	A	A	A	G	R	R	A	A	N/A	16	17			11,594
Army	ALASKA ARNG	AK	46,684	42,958	-	A	A	A	A	G	G	A	R	G	N/A	65	76			864
Army	ARIZONA ARNG	AZ	65,616	19,602	-	A	A	A	A	G	R	A	R	A	N/A	34,983	28,756			3,982
Army	ARKANSAS ARNG	AR	244,653	138,001	819	A	A	A	A	G	G	R	A	G	N/A	-	-			15,815
Army	CALIFORNIA ARNG	CA	341,803	170,777	-	A	A	A	A	G	G	G	G	G	N/A	7,651	7,547			20,257
Army	COLORADO ARNG	CO	64,857	42,498	-	A	A	A	A	G	A	G	R	R	N/A	30	30			2,194
Army	CONNECTICUT ARNG	CT	70,553	46,982	120	A	A	A	A	G	A	A	A	R	N/A	87	86			5,276
Army	DELAWARE ARNG	DE	31,286	18,030	-	A	A	A	A	G	A	R	G	R	N/A	331	436			2,355
Army	FLORIDA ARNG	FL	106,752	24,632	-	A	A	A	A	G	A	R	G	R	N/A	826	568			7,125
Army	USAG MIAMI	FL	32,334	217	-	A	A	A	A	G	A	R	G	R	N/A	76	73			585
Army	GEORGIA ARNG	GA	102,996	31,784	-	A	A	A	A	G	G	R	A	G	N/A	298	205			7,263
Army	HAWAII ARNG	HI	25,416	1,385	-	A	A	A	A	G	R	G	R	A	N/A	425	314			2,431

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
Army	IDAHO ARNG	ID	97,179	51,840	49	A	A	A	A	G	A	R	R	R	N/A	3,398	3,351			4,880
Army	ILLINOIS ARNG	IL	194,100	141,937	-	A	A	A	A	G	R	G	G	R	N/A	110	252			10,925
Army	INDIANA ARNG	IN	361,884	233,552	-	A	A	A	A	G	A	R	A	R	N/A	-	-			12,002
Army	IOWA ARNG	IA	168,843	89,859	-	A	A	A	A	G	A	G	G	A	N/A	144	236			10,057
Army	KANSAS ARNG	KS	171,355	96,172	-	A	A	A	A	G	R	G	G	R	N/A	66	114			7,517
Army	KENTUCKY ARNG	KY	135,201	84,441	-	A	A	A	A	G	R	R	A	A	N/A	911	1,498			6,208
Army	LOUISIANA ARNG	LA	110,125	44,137	-	A	A	A	A	G	A	R	A	R	N/A	-	-			11,226
Army	MAINE ARNG	ME	63,820	48,756	-	A	A	A	A	G	A	A	A	R	N/A	2,003	3,293			4,299
Army	MARYLAND ARNG	MD	68,267	45,205	-	A	A	A	A	G	A	A	A	R	N/A	94	155			6,037
Army	MASSACHUSETTS ARNG	MA	87,770	66,210	-	A	A	A	A	G	A	A	R	R	N/A	24	39			7,693
Army	MICHIGAN ARNG	MI	273,835	189,985	-	A	A	A	A	G	A	G	A	R	N/A	1,486	3,420			14,309
Army	MINNESOTA ARNG	MN	180,230	127,921	-	A	A	A	A	G	R	G	G	A	N/A	2,442	8,994			11,112
Army	MISSISSIPPI ARNG	MS	269,402	93,776	-	A	A	A	A	G	A	R	A	R	N/A	99	97			17,462
Army	MISSOURI ARNG	MO	134,509	74,048	-	A	A	A	A	G	A	A	G	G	N/A	1,339	2,311			8,655
Army	MONTANA ARNG	MT	77,836	50,567	-	A	A	A	A	G	A	G	A	A	N/A	40,779	112,629			4,255
Army	NEBRASKA ARNG	NE	66,937	40,310	-	A	A	A	A	G	G	A	A	G	N/A	167	411			5,482
Army	NEVADA ARNG	NV	48,310	23,570	-	A	A	A	A	G	A	G	R	R	N/A	1,271	1,045			2,018
Army	NEW HAMPSHIRE ARNG	NH	37,307	26,518	-	A	A	A	A	G	A	R	R	R	N/A	-	-			2,646
Army	NEW JERSEY ARNG	NJ	143,997	111,337	-	A	A	A	A	G	G	A	R	G	N/A	-	-			6,481
Army	NEW MEXICO ARNG	NM	39,002	24,252	3,071	A	A	A	A	G	A	G	R	R	N/A	38,647	71,161			3,297
Army	NEW YORK ARNG	NY	201,695	150,034	-	A	A	A	A	G	A	G	A	R	N/A	1,442	2,370			14,633
Army	NORTH CAROLINA ARNG	NC	112,241	59,567	-	A	A	A	A	G	A	A	G	A	N/A	89	88			7,125
Army	NORTH DAKOTA ARNG	ND	110,030	83,590	-	A	A	A	A	G	A	G	A	R	N/A	102	188			4,218
Army	OHIO ARNG	OH	98,023	66,192	-	A	A	A	A	G	A	R	G	A	N/A	1,822	4,193			9,983
Army	OKLAHOMA ARNG	OK	99,052	54,191	-	A	A	A	A	G	G	A	R	G	N/A	90	124			12,974
Army	OREGON ARNG	OR	119,509	69,400	-	A	A	A	A	G	A	G	G	R	N/A	2,148	1,695			7,254
Army	PENNSYLVANIA ARNG	PA	449,765	310,327	2	A	A	A	A	G	A	G	G	R	N/A	76	100			18,188
Army	RHODE ISLAND ARNG	RI	41,836	32,716	-	A	A	A	A	G	R	R	R	R	N/A	655	862			2,236
Army	SOUTH CAROLINA ARNG	SC	111,169	43,287	-	A	A	A	A	G	A	R	A	A	N/A	1,910	1,413			7,603
Army	SOUTH DAKOTA ARNG	SD	83,656	51,590	-	A	A	A	A	G	R	A	R	R	N/A	2	5			4,460
Army	TENNESSEE ARNG	TN	126,884	63,516	-	A	A	A	A	G	A	R	R	G	N/A	1,553	2,552			11,087

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
Army	TEXAS ARNG	TX	151,404	47,277	-	A	A	A	A	G	A	G	A	G	N/A	9,906	12,214			12,007
Army	UTAH ARNG	UT	88,743	59,335	-	A	A	A	A	G	A	R	R	R	N/A	190	188			1,768
Army	VERMONT ARNG	VT	61,363	43,099	-	A	A	A	A	G	A	R	R	R	N/A	1,141	1,876			3,602
Army	VIRGINIA ARNG	VA	183,319	108,064	-	A	A	A	A	G	A	A	G	G	N/A	279	275			9,019
Army	WASHINGTON ARNG	WA	67,176	45,090	-	A	A	A	A	G	R	A	G	R	N/A	583	958			4,878
Army	WEST VIRGINIA ARNG	WV	139,208	80,214	137	A	A	A	A	G	A	R	R	R	N/A	935	1,844			7,664
Army	WISCONSIN ARNG	WI	176,387	132,935	-	A	A	A	A	G	R	A	G	A	N/A	83	110			7,339
Army	WYOMING ARNG	WY	67,139	50,840	-	A	A	A	A	G	A	A	R	R	N/A	24,206	19,103			2,748
	Total Army															**8,287,617**	**9,072,481**	**330,386**	**1,167,387**	**975,624**
DeCA	ABERDEEN PROVING GROUND	MD	11,107	3,493	-	A	R	R	R	R	A	A	A	A	N/A	837	-	-	-	-
DeCA	MCLB ALBANY GA	GA	6,503	1,867	-	A	R	R	R	R	R	R	A	A	N/A	603	-	-	-	-
DeCA	ALTUS AIR FORCE BASE	OK	7,739	1,686	-	A	R	R	R	R	N/A	A	R	N/A	N/A	950	-	-	-	-
DeCA	ELMENDORF AIR FORCE BASE	AK	18,939	6,059	-	A	R	R	R	R	A	A	R	R	N/A	942	-	-	-	-
DeCA	ANDERSEN AIR FORCE BASE	Guam	13,527	-	-	A	R	R	R	R	A	N/A	N/A	R	N/A	1,831	-	-	-	-
DeCA	ANDREWS AIR FORCE BASE	MD	18,529	3,948	-	A	R	R	R	R	N/A	A	A	N/A	N/A	1,525	-	-	-	-
DeCA	NAVAL SUPPORT ACTIVITY WASH	MD	5,706	-	-	A	R	R	R	R	A	A	A	R	N/A	347	-	-	-	-
DeCA	KATTERBACH KASERNE	Germany	4,946	1,550	-	A	R	R	R	R	R	N/A	N/A	R	N/A	389	-	-	-	-
DeCA	PICATINNY ARSENAL	NJ	4,168	1,256	-	A	R	R	R	R	A	A	R	R	N/A	296	-	-	-	-
DeCA	ARNOLD AIR STATION	TN	5,350	1,526	-	A	R	R	R	R	N/A	R	R	N/A	N/A	347	-	-	-	-
DeCA	NAVAL SUPPORT ACTIVITY ATHENS	GA	911	210	-	R	R	R	R	R	N/A	R	A	N/A	N/A	-	-	-	-	-
DeCA	NAF ATSUGI JA	Japan	5,371	491	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	383	-	-	-	-
DeCA	AVIANO AIR BASE	Italy	9,172	1,797	-	A	R	R	R	R	A	N/A	N/A	R	N/A	385	-	-	-	-
DeCA	WARNER BARRACKS	Germany	5,816	2,400	-	A	R	R	R	R	A	N/A	N/A	G	N/A	420	-	-	-	-
DeCA	BANGOR INTERNATIONAL AIRPORT (ANG)	ME	5,526	2,207	-	A	R	R	R	R	R	A	A	A	N/A	303	-	-	-	-
DeCA	NAVAL BASE KITSAP BREMERTON WA	WA	9,501	2,465	-	A	R	R	R	R	G	A	G	G	N/A	457	-	-	-	-
DeCA	BARKSDALE AIR FORCE BASE	LA	5,360	909	-	A	R	R	R	R	N/A	R	A	N/A	N/A	1,707	-	-	-	-
DeCA	MCLB BARSTOW CA	CA	3,787	1,170	-	A	R	R	R	R	G	G	G	G	N/A	395	-	-	-	-
DeCA	SMITH BARRACKS	Germany	4,986	-	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	286	-	-	-	-
DeCA	BEALE AIR FORCE BASE	CA	11,214	2,371	-	A	R	R	R	R	N/A	G	G	N/A	N/A	1,238	-	-	-	-
DeCA	BITBURG FAMILY HOUSING ANNEX	Germany	8,703	1,638	-	A	R	R	R	R	A	N/A	N/A	G	N/A	568	-	-	-	-
DeCA	BOLLING AIR FORCE BASE	DC	10,827	2,254	-	A	R	R	R	R	A	N/A	N/A	R	N/A	859	-	-	-	-
DeCA	NAVAL BASE KITSAP BREMERTON WA	WA	6,109	162	-	A	R	R	R	R	G	A	G	G	N/A	355	-	-	-	-

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
DeCA	NAS BRUNSWICK ME	ME	5,310	1,973	-	A	R	R	R	R	A	A	A	R	N/A	-	-	-	-	-
DeCA	BUCKLEY AIR FORCE BASE	CO	14,590	3,496	-	A	R	R	R	R	N/A	G	R	N/A	N/A	1,157	-	-	-	-
DeCA	CHARLES E KELLY SPT FACILITY	PA	3,466	969	-	R	R	R	R	R	N/A	G	G	N/A	N/A	-	-	-	-	-
DeCA	CAMP CARROLL	South Korea	1,720	195	-	R	R	R	R	R	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-
DeCA	CAMP CASEY	South Korea	3,241	1,466	-	R	R	R	R	R	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-
DeCA	MCB CAMP S D BUTLER OKINAWA JA	Japan	6,850	490	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	339	-	-	-	-
DeCA	MCB CAMP S D BUTLER OKINAWA JA	Japan	11,388	251	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	634	-	-	-	-
DeCA	CAMP HUMPHREYS	South Korea	5,196	2,471	-	R	R	R	R	R	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-
DeCA	MCB CAMP S D BUTLER OKINAWA JA	Japan	6,886	492	-	R	R	R	R	R	A	N/A	N/A	R	N/A	-	-	-	-	-
DeCA	KURE PIER 6	Japan	574	-	-	A	R	R	R	R	A	N/A	N/A	R	N/A	20	-	-	-	-
DeCA	MCB CAMP LEJEUNE NC	NC	12,892	1,548	-	A	R	R	R	R	G	A	G	G	N/A	1,130	-	-	-	-
DeCA	DAHLONEGA	GA	492	121	-	A	R	R	R	R	N/A	R	A	N/A	N/A	43	-	-	-	-
DeCA	MCB CAMP PENDLETON CA	CA	14,036	945	-	A	R	R	R	R	N/A	G	G	N/A	N/A	1,863	-	-	-	-
DeCA	CAMP RED CLOUD	South Korea	394	360	-	R	R	R	R	R	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-
DeCA	CAMP STANLEY	South Korea	767	733	-	R	R	R	R	R	G	N/A	N/A	G	N/A	-	-	-	-	-
DeCA	CAMP ZAMA	Japan	1,677	600	-	A	R	R	R	R	A	N/A	N/A	R	N/A	116	-	-	-	-
DeCA	CANNON AIR FORCE BASE	NM	6,225	920	-	A	R	R	R	R	R	G	R	R	N/A	1,132	-	-	-	-
DeCA	CARLISLE BARRACKS	PA	6,620	802	-	A	R	R	R	R	R	G	G	R	N/A	716	-	-	-	-
DeCA	CHARLESTON AIR FORCE BASE	SC	16,124	1,622	-	A	R	R	R	R	A	R	A	R	N/A	1,290	-	-	-	-
DeCA	NAVAL WEAPONS STATION CHASN	SC	11,312	874	-	A	R	R	R	R	N/A	R	A	N/A	N/A	952	-	-	-	-
DeCA	MCAS CHERRY POINT NC	NC	8,041	489	-	A	R	R	R	R	G	A	G	G	N/A	886	-	-	-	-
DeCA	CHIEVRES AIRBASE	Belgium	9,584	2,205	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	248	-	-	-	-
DeCA	NAWS CHINA LAKE	CA	2,795	375	-	A	R	R	R	R	R	G	G	A	N/A	506	-	-	-	-
DeCA	FLEET ACTIVITIES CHINHAE KS	South Korea	1,353	228	-	A	R	R	R	R	A	N/A	N/A	G	N/A	135	-	-	-	-
DeCA	COLUMBUS AIR FORCE BASE	MS	3,196	845	-	A	R	R	R	R	R	R	A	R	N/A	732	-	-	-	-
DeCA	NAS CORPUS CHRISTI TX	TX	9,878	1,311	-	A	R	R	R	R	A	G	A	R	N/A	552	-	-	-	-
DeCA	NAVAL SUPPORT ACTIVITY CRANE	IN	1,121	299	-	A	R	R	R	R	G	R	A	G	N/A	97	-	-	-	-
DeCA	NSA SOUTH POTOMAC	VA	2,792	546	-	A	R	R	R	R	N/A	A	G	N/A	N/A	184	-	-	-	-
DeCA	DAVIS-MONTHAN AIR FORCE BASE	AZ	14,832	1,203	-	A	R	R	R	R	A	A	R	R	N/A	2,576	-	-	-	-
DeCA	KAPAUN ADMINISTRATION ANX	Germany	4,021	2,001	-	A	R	R	R	R	G	N/A	N/A	G	N/A	506	-	-	-	-
DeCA	FORT LEE	VA	22,672	5,362	-	A	R	R	R	R	A	A	G	R	N/A	2,886	-	-	-	-

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
DeCA	MCCLELLAN AIR FORCE BASE	CA	9,976	3,806	-	A	R	R	R	R	A	G	G	G	N/A	1,040	-	-	-	-
DeCA	DOVER AIR FORCE BASE	DE	11,079	3,201	-	A	R	R	R	R	A	R	G	G	N/A	937	-	-	-	-
DeCA	DUGWAY PROVING GROUND	UT	2,663	1,371	-	A	R	R	R	R	G	R	R	G	N/A	271	-	-	-	-
DeCA	DYESS AIR FORCE BASE	TX	8,106	1,976	-	A	R	R	R	R	A	G	A	R	N/A	1,309	-	-	-	-
DeCA	EDWARDS AIR FORCE BASE	CA	7,665	-	-	A	R	R	R	R	R	G	G	A	N/A	1,264	-	-	-	-
DeCA	EGLIN AIR FORCE BASE	FL	13,796	1,089	-	A	R	R	R	R	G	R	G	G	N/A	1,597	-	-	-	-
DeCA	EIELSON AIR FORCE BASE	AK	3,123	1,941	-	A	R	R	R	R	A	A	R	A	N/A	376	-	-	-	-
DeCA	NAF EL CENTRO CA	CA	2,070	56	-	A	R	R	R	R	R	G	G	A	N/A	232	-	-	-	-
DeCA	ELLSWORTH AIR FORCE BASE	SD	13,485	5,883	-	A	R	R	R	R	A	A	R	G	N/A	867	-	-	-	-
DeCA	FRANCIS E WARREN AIR FORCE BASE	WY	9,070	3,017	-	A	R	R	R	R	G	A	R	G	N/A	1,157	-	-	-	-
DeCA	FAIRCHILD AIR FORCE BASE	WA	12,160	3,271	-	A	R	R	R	R	A	A	G	R	N/A	485	-	-	-	-
DeCA	NAS FALLON NV	NV	5,583	3,075	-	A	R	R	R	R	A	G	R	R	N/A	725	-	-	-	-
DeCA	FORT BELVOIR	VA	21,523	5,771	-	A	R	R	R	R	A	A	G	G	N/A	1,732	-	-	-	-
DeCA	FORT BENNING GA	GA	10,566	845	-	A	R	R	R	R	A	R	A	R	N/A	1,761	-	-	-	-
DeCA	FORT BLISS	TX	18,081	1,178	-	A	R	R	R	R	A	G	A	R	N/A	2,748	-	-	-	-
DeCA	FORT BRAGG	NC	13,296	2,204	-	A	R	R	R	R	N/A	A	G	N/A	N/A	1,425	-	-	-	-
DeCA	FORT BRAGG	NC	17,384	2,780	-	A	R	R	R	R	R	A	G	R	N/A	1,767	-	-	-	-
DeCA	FORT BUCHANAN	Puerto Rico	17,585	-	-	A	R	R	R	R	G	N/A	N/A	G	N/A	1,705	-	-	-	-
DeCA	FORT CAMPBELL	TN	19,944	3,095	-	A	R	R	R	R	A	R	R	R	N/A	1,652	-	-	-	-
DeCA	FORT CARSON	CO	12,887	2,109	-	A	R	R	R	R	A	G	R	R	N/A	1,976	-	-	-	-
DeCA	FORT DETRICK	MD	10,017	4,595	-	A	R	R	R	R	A	A	A	R	N/A	470	-	-	-	-
DeCA	FORT DRUM	NY	10,863	3,682	-	A	R	R	R	R	A	G	A	R	N/A	990	-	-	-	-
DeCA	FORT EUSTIS	VA	11,850	1,718	-	A	R	R	R	R	A	A	G	R	N/A	1,381	-	-	-	-
DeCA	FORT GILLEM	GA	2,335	732	-	R	R	R	R	R	R	R	A	A	N/A	-	-	-	-	-
DeCA	FORT GORDON	GA	13,556	1,942	-	A	R	R	R	R	A	R	A	R	N/A	1,378	-	-	-	-
DeCA	FORT GREELY	AK	3,864	840	-	A	R	R	R	R	A	A	R	G	N/A	148	-	-	-	-
DeCA	FORT HAMILTON	NY	9,294	1,864	-	A	R	R	R	R	A	G	A	G	N/A	602	-	-	-	-
DeCA	FORT HOOD	TX	15,213	2,330	-	A	R	R	R	R	G	G	A	G	N/A	2,101	-	-	-	-
DeCA	FORT HOOD	TX	16,724	3,134	-	A	R	R	R	R	G	G	A	G	N/A	1,737	-	-	-	-
DeCA	FORT HUACHUCA	AZ	7,984	2,465	-	A	R	R	R	R	G	A	R	G	N/A	1,623	-	-	-	-
DeCA	FORT HUNTER LIGGETT	CA	1,561	264	-	A	R	R	R	R	R	G	G	R	N/A	117	-	-	-	-

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
DeCA	NATIONAL TRAINING CENTER AND FORT IRWIN	CA	8,000	1,012	-	A	R	R	R	R	R	G	G	R	N/A	1,351	-	-	-	-
DeCA	FORT JACKSON	SC	16,910	4,562	-	A	R	R	R	R	A	R	A	A	N/A	1,943	-	-	-	-
DeCA	FORT KNOX	KY	15,937	4,778	-	A	R	R	R	R	A	R	A	R	N/A	1,457	-	-	-	-
DeCA	FORT LEAVENWORTH	KS	12,534	1,732	-	A	R	R	R	R	A	G	G	R	N/A	888	-	-	-	-
DeCA	FORT LEE	VA	12,676	658	-	A	R	R	R	R	A	A	G	G	N/A	966	-	-	-	-
DeCA	FORT LEONARD WOOD	MO	12,578	3,237	-	A	R	R	R	R	A	A	G	R	N/A	1,061	-	-	-	-
DeCA	FORT LEWIS	WA	13,742	3,894	-	A	R	R	R	R	A	A	G	R	N/A	628	-	-	-	-
DeCA	FORT MCCOY	WI	3,941	1,465	-	A	R	R	R	R	A	A	G	R	N/A	190	-	-	-	-
DeCA	FORT MCPHERSON/GILLEM	GA	4,572	402	-	R	R	R	R	R	A	R	A	R	N/A	-	-	-	-	-
DeCA	FORT GEORGE G MEADE	MD	19,307	3,772	-	A	R	R	R	R	A	A	A	R	N/A	1,411	-	-	-	-
DeCA	FORT MONMOUTH	NJ	10,450	2,941	-	R	R	R	R	R	R	A	R	A	N/A	-	-	-	-	-
DeCA	FORT MYER	VA	7,002	3,095	-	A	R	R	R	R	A	A	G	A	N/A	886	-	-	-	-
DeCA	FORT POLK	LA	10,524	1,765	-	A	R	R	R	R	R	R	A	R	N/A	1,232	-	-	-	-
DeCA	FORT RILEY	KS	12,511	2,205	-	A	R	R	R	R	A	G	G	G	N/A	1,016	-	-	-	-
DeCA	FORT RUCKER	AL	10,733	1,589	-	A	R	R	R	R	A	R	A	A	N/A	1,274	-	-	-	-
DeCA	FORT SAM HOUSTON	TX	18,564	2,570	-	A	R	R	R	R	A	G	A	R	N/A	1,717	-	-	-	-
DeCA	FORT SILL	OK	14,940	4,823	-	A	R	R	R	R	R	A	R	A	N/A	1,670	-	-	-	-
DeCA	FORT STEWART	GA	12,190	128	-	A	R	R	R	R	A	R	A	G	N/A	1,554	-	-	-	-
DeCA	FORT WAINWRIGHT	AK	12,469	2,759	-	A	R	R	R	R	N/A	A	R	N/A	N/A	937	-	-	-	-
DeCA	NAS JRB FT WORTH TX	TX	6,731	128	-	A	R	R	R	R	N/A	G	A	N/A	N/A	1,387	-	-	-	-
DeCA	ARTILLERY KASERNE	Germany	1,094	716	-	A	R	R	R	R	A	N/A	N/A	G	N/A	122	-	-	-	-
DeCA	GERMERSHEIM ARMY DEPOT	Germany	23,805	14,061	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	7,077	-	-	-	-
DeCA	GOODFELLOW AIR FORCE BASE	TX	7,358	901	-	A	R	R	R	R	A	G	A	A	N/A	1,025	-	-	-	-
DeCA	EAST CAMP GRAFENWOEHR	Germany	7,824	3,189	-	A	R	R	R	R	A	N/A	N/A	R	N/A	128	-	-	-	-
DeCA	GRAND FORKS AIR FORCE BASE	ND	7,319	3,317	-	A	R	R	R	R	N/A	G	A	N/A	N/A	493	-	-	-	-
DeCA	NAVAL STATION GREAT LAKES IL	IL	12,042	3,543	-	A	R	R	R	R	N/A	G	G	N/A	N/A	716	-	-	-	-
DeCA	NAVBASE GUAM	Guam	11,880	969	-	A	R	R	R	R	R	N/A	N/A	A	N/A	1,021	-	-	-	-
DeCA	NAVBASE GUAM	Guam	16,232	-	-	A	R	R	R	R	R	N/A	N/A	R	N/A	3,358	-	-	-	-
DeCA	CBC GULFPORT MS	MS	7,997	2,306	-	A	R	R	R	R	N/A	R	A	N/A	N/A	369	-	-	-	-
DeCA	MAXWELL AIR FORCE BASE GUNTER ANNEX	AL	7,754	1,122	-	A	R	R	R	R	A	R	A	R	N/A	967	-	-	-	-
DeCA	YONGSAN GARRISON	South Korea	718	527	-	R	R	R	R	R	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
DeCA	HANSCOM AIR FORCE BASE	MA	10,955	2,028	-	A	R	R	R	R	R	A	R	R	N/A	879	-	-	-	-
DeCA	COMFLEACT SASEBO JA	Japan	5,021	903	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	215	-	-	-	-
DeCA	FORT BENJAMIN HARRISON	IN	8,308	1,588	-	A	R	R	R	R	G	R	A	G	N/A	646	-	-	-	-
DeCA	PATRICK HENRY VILLAGE FAM HSG	Germany	11,841	957	-	A	R	R	R	R	A	N/A	N/A	G	N/A	521	-	-	-	-
DeCA	HICKAM AIR FORCE BASE	HI	14,884	-	-	A	R	R	R	R	N/A	G	R	N/A	N/A	2,415	-	-	-	-
DeCA	HILL AIR FORCE BASE	UT	13,674	4,112	-	A	R	R	R	R	G	R	R	G	N/A	1,299	-	-	-	-
DeCA	HOHENFELS TNG AREA	Germany	6,070	1,410	-	A	R	R	R	R	A	N/A	N/A	R	N/A	343	-	-	-	-
DeCA	HOLLOMAN AIR FORCE BASE	NM	9,413	1,559	-	A	R	R	R	R	A	G	R	R	N/A	1,437	-	-	-	-
DeCA	HUNTER ARMY AIRFIELD	GA	8,023	522	-	A	R	R	R	R	N/A	R	A	N/A	N/A	862	-	-	-	-
DeCA	EGLIN AIR FORCE AUXILIARY FIELD #9	FL	12,120	1,572	-	A	R	R	R	R	G	R	G	G	N/A	946	-	-	-	-
DeCA	STORCK BARRACKS	Germany	1,809	1,145	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	338	-	-	-	-
DeCA	NAS NORTH ISLAND SAN DIEGO CA	CA	10,386	809	-	A	R	R	R	R	N/A	G	G	N/A	N/A	1,404	-	-	-	-
DeCA	INCIRLIK AIR BASE ADANA	Turkey	7,634	-	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	904	-	-	-	-
DeCA	MCAS IWAKUNI JA	Japan	5,584	542	-	A	R	R	R	R	A	N/A	N/A	R	N/A	309	-	-	-	-
DeCA	IZMIR AIR STATION	Turkey	2,809	-	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	177	-	-	-	-
DeCA	NAS JACKSONVILLE FL	FL	11,241	364	-	A	R	R	R	R	N/A	R	G	N/A	N/A	1,318	-	-	-	-
DeCA	KADENA AIR BASE	Japan	12,115	832	-	A	R	R	R	R	G	N/A	N/A	G	N/A	1,039	-	-	-	-
DeCA	RAMSTEIN STORAGE ANNEX	Germany	22,615	2,138	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	1,593	-	-	-	-
DeCA	MCB HAWAII KANEOHE	HI	11,110	495	-	A	R	R	R	R	N/A	G	R	N/A	N/A	1,379	-	-	-	-
DeCA	SAGAMI GENERAL DEPOT	Japan	6,967	300	-	A	R	R	R	R	R	N/A	N/A	A	N/A	1,887	-	-	-	-
DeCA	COMFLEACT YOKOSUKA JA	Japan	6,967	300	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	1,887	-	-	-	-
DeCA	KEESLER AIR FORCE BASE	MS	6,857	417	-	A	R	R	R	R	A	R	A	R	N/A	477	-	-	-	-
DeCA	KELLEY BARRACKS-GERGE44F	Germany	3,186	1,557	-	A	R	R	R	R	A	N/A	N/A	R	N/A	163	-	-	-	-
DeCA	NAS KEY WEST FL	FL	5,084	-	-	A	R	R	R	R	A	R	G	G	N/A	318	-	-	-	-
DeCA	SUBASE KINGS BAY GA	GA	8,178	-	-	A	R	R	R	R	G	R	A	G	N/A	785	-	-	-	-
DeCA	NAS KINGSVILLE TX	TX	2,581	205	-	A	R	R	R	R	N/A	G	A	N/A	N/A	176	-	-	-	-
DeCA	KIRTLAND AIR FORCE BASE	NM	14,430	1,996	-	A	R	R	R	R	A	G	R	G	N/A	2,575	-	-	-	-
DeCA	KUNSAN AIR BASE	South Korea	3,736	1,360	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	193	-	-	-	-
DeCA	LACKLAND AIR FORCE BASE	TX	17,202	1,724	-	A	R	R	R	R	A	G	A	R	N/A	1,919	-	-	-	-
DeCA	LAJES FIELD	Portugal	6,455	-	-	A	R	R	R	R	A	N/A	N/A	R	N/A	866	-	-	-	-
DeCA	NAWCADLKE NON-NIF LAKEHURST NJ	NJ	3,124	1,634	-	A	R	R	R	R	A	A	R	G	N/A	220	-	-	-	-

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DeCA	LANGLEY AIR FORCE BASE	VA	18,737	3,414	-	A	R	R	R	R	G	A	G	G	N/A	1,542	-	-	-	-
DeCA	LAUGHLIN AIR FORCE BASE	TX	3,299	1,339	-	A	R	R	R	R	A	G	A	R	N/A	1,231	-	-	-	-
DeCA	NAS LEMOORE CA	CA	6,999	1,156	-	A	R	R	R	R	R	G	G	A	N/A	792	-	-	-	-
DeCA	NAVPHIBASE LITTLE CREEK VA	VA	19,515	2,196	-	A	R	R	R	R	N/A	A	G	N/A	N/A	1,200	-	-	-	-
DeCA	LITTLE ROCK AIR FORCE BASE	AR	13,290	1,933	-	A	R	R	R	R	G	R	A	G	N/A	1,495	-	-	-	-
DeCA	CAMP DARBY	Italy	3,025	438	-	A	R	R	R	R	G	N/A	N/A	G	N/A	316	-	-	-	-
DeCA	LOS ANGELES AIR FORCE BASE	CA	8,707	895	442	R	R	R	R	R	A	G	G	R	N/A	-	-	-	-	-
DeCA	LUKE AIR FORCE BASE	AZ	6,886	864	-	A	R	R	R	R	A	A	R	G	N/A	2,441	-	-	-	-
DeCA	MACDILL AIR FORCE BASE	FL	17,452	972	-	A	R	R	R	R	N/A	R	G	N/A	N/A	2,553	-	-	-	-
DeCA	MALMSTROM AIR FORCE BASE	MT	10,375	2,454	-	A	R	R	R	R	G	G	A	G	N/A	815	-	-	-	-
DeCA	SULLIVAN BARRACKS	Germany	9,119	911	-	A	R	R	R	R	R	N/A	N/A	R	N/A	575	-	-	-	-
DeCA	MARCH AIR RESERVE BASE	CA	14,576	3,313	-	A	R	R	R	R	A	G	G	R	N/A	2,090	-	-	-	-
DeCA	MAXWELL AIR FORCE BASE	AL	13,523	2,203	-	A	R	R	R	R	A	R	A	G	N/A	1,300	-	-	-	-
DeCA	NAVSTA MAYPORT FL	FL	10,972	-	-	A	R	R	R	R	G	R	G	G	N/A	1,062	-	-	-	-
DeCA	MCCHORD AIR FORCE BASE	WA	18,294	4,397	-	A	R	R	R	R	A	A	G	A	N/A	883	-	-	-	-
DeCA	MCCLELLAN AIR FORCE BASE	CA	13,026	770	-	A	R	R	R	R	A	G	G	R	N/A	1,315	-	-	-	-
DeCA	MCCONNELL AIR FORCE BASE	KS	9,724	2,132	-	A	R	R	R	R	R	G	G	A	N/A	835	-	-	-	-
DeCA	MCGUIRE AIR FORCE BASE	NJ	14,655	2,208	-	A	R	R	R	R	R	A	R	R	N/A	1,231	-	-	-	-
DeCA	NAS MERIDIAN MS	MS	5,572	503	-	A	R	R	R	R	A	R	A	A	N/A	378	-	-	-	-
DeCA	NAVSUPPACT MIDSOUTH MEMPHIS TN	TN	10,769	2,668	-	A	R	R	R	R	G	R	R	G	N/A	732	-	-	-	-
DeCA	MINOT AIR FORCE BASE	ND	9,094	2,567	-	A	R	R	R	R	N/A	G	A	N/A	N/A	675	-	-	-	-
DeCA	MCAS MIRAMAR	CA	13,774	564	-	A	R	R	R	R	A	G	G	R	N/A	1,900	-	-	-	-
DeCA	MISAWA AIR BASE	Japan	20,113	3,563	-	A	R	R	R	R	G	N/A	N/A	G	N/A	739	-	-	-	-
DeCA	NAVSUBASE NEW LONDON CT	NY	4,845	2,085	-	A	R	R	R	R	A	G	A	R	N/A	337	-	-	-	-
DeCA	NASA INSTALLATION	CA	3,167	260	-	A	R	R	R	R	R	G	G	A	N/A	854	-	-	-	-
DeCA	MOODY AIR FORCE BASE	GA	6,806	755	-	A	R	R	R	R	N/A	R	A	N/A	N/A	657	-	-	-	-
DeCA	MOUNTAIN HOME AIR FORCE BASE	ID	6,315	88	-	A	R	R	R	R	G	R	R	G	N/A	800	-	-	-	-
DeCA	NAVSUPPACT NAPLES IT	Italy	11,884	495	-	A	R	R	R	R	A	N/A	N/A	R	N/A	891	-	-	-	-
DeCA	NELLIS AIR FORCE BASE	NV	16,545	889	-	A	R	R	R	R	R	G	R	A	N/A	2,718	-	-	-	-
DeCA	NAVSUBASE NEW LONDON CT	CT	8,237	960	-	A	R	R	R	R	A	A	A	R	N/A	545	-	-	-	-
DeCA	NSA NEW ORLEANS LA	LA	4,022	883	-	R	R	R	R	R	A	R	A	R	N/A	-	-	-	-	-

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DoD Component	Installation	ST	FY2009 Energy Consumption (MMBTU)	On-Site Energy Production (MMBTU)	On site Renewable Energy Production (MMBTU)	Mission Compatibility					Resource Abundance/Economic Environment					Estimated Renewable Annual Production (MMBTU)				
						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
DeCA	MCB CAMP LEJEUNE NC	NC	3,727	1,321	-	A	R	R	R	R	A	A	G	R	N/A	689	-	-	-	-
DeCA	NAVAL STATION NEWPORT RI	RI	10,102	1,304	-	A	R	R	R	R	G	R	R	G	N/A	385	-	-	-	-
DeCA	NAVSTA NORFOLK VA	VA	12,557	1,584	-	A	R	R	R	R	A	A	G	R	N/A	1,175	-	-	-	-
DeCA	NAS NORTH ISLAND SAN DIEGO CA	CA	9,699	1,809	-	A	R	R	R	R	A	G	G	A	N/A	691	-	-	-	-
DeCA	NAS OCEANA VA	VA	18,989	2,415	-	A	R	R	R	R	N/A	A	G	N/A	N/A	1,643	-	-	-	-
DeCA	OFFUTT AIR FORCE BASE	NE	14,124	2,055	-	A	R	R	R	R	G	A	A	G	N/A	1,787	-	-	-	-
DeCA	MCB CAMP S D BUTLER OKINAWA JA	Japan	13,453	194	-	R	R	R	R	R	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-
DeCA	ORD MILITARY COMMUNITY	CA	10,346	1,898	-	A	R	R	R	R	N/A	G	G	N/A	N/A	1,830	-	-	-	-
DeCA	OSAN AIR BASE	South Korea	17,809	5,056	-	A	R	R	R	R	R	N/A	N/A	R	N/A	1,232	-	-	-	-
DeCA	PANZER KASERNE-GERGE643	Germany	1,492	714	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	47	-	-	-	-
DeCA	MCRD/BEAUFORT PI, SC	SC	6,230	910	-	A	R	R	R	R	A	R	A	R	N/A	661	-	-	-	-
DeCA	PATCH BARRACKS	Germany	6,711	1,827	-	A	R	R	R	R	A	N/A	N/A	R	N/A	577	-	-	-	-
DeCA	PATRICK AIR FORCE BASE	FL	9,610	256	-	A	R	R	R	R	G	R	G	G	N/A	1,534	-	-	-	-
DeCA	NAS PATUXENT RIVER MD	MD	10,225	3,060	-	A	R	R	R	R	A	A	A	R	N/A	668	-	-	-	-
DeCA	NAVSTA PEARL HARBOR HI	HI	14,616	-	-	R	R	R	R	R	G	G	R	G	N/A	-	-	-	-	-
DeCA	NAS PENSACOLA FL	FL	12,630	1,593	-	A	R	R	R	R	G	R	G	G	N/A	1,103	-	-	-	-
DeCA	PETERSON AIR FORCE BASE	CO	15,950	2,162	-	A	R	R	R	R	A	G	R	R	N/A	1,529	-	-	-	-
DeCA	NAVBASE VENTURA CTY PT MUGU CA	CA	7,079	658	-	A	R	R	R	R	A	G	G	R	N/A	1,161	-	-	-	-
DeCA	NAVSUPPACT NORFOLK NSY	VA	9,229	3,979	-	A	R	R	R	R	A	A	G	R	N/A	746	-	-	-	-
DeCA	NSY PORTSMOUTH	NH	6,368	2,016	-	A	R	R	R	R	N/A	R	R	N/A	N/A	338	-	-	-	-
DeCA	MARINE CORPS BASE QUANTICO VA	VA	13,294	2,586	-	A	R	R	R	R	N/A	A	G	N/A	N/A	1,052	-	-	-	-
DeCA	RAF ALCONBURY	United Kingdom	13,940	6,050	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	461	-	-	-	-
DeCA	RAF CROUGHTON	United Kingdom	5,243	1,581	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	117	-	-	-	-
DeCA	RAF LAKENHEATH	United Kingdom	11,015	-	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	409	-	-	-	-
DeCA	MENWITH HILL	United Kingdom	6,653	1,976	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	205	-	-	-	-
DeCA	RAF MILDENHALL	United Kingdom	981	572	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	83	-	-	-	-
DeCA	RAMSTEIN AIR BASE	Germany	9,813	6,897	-	A	R	R	R	R	A	N/A	N/A	G	N/A	654	-	-	-	-
DeCA	RAMSTEIN AIR BASE	Germany	2,363	918	-	A	R	R	R	R	R	N/A	N/A	R	N/A	363	-	-	-	-
DeCA	RANDOLPH AIR FORCE BASE	TX	15,185	2,495	-	A	R	R	R	R	A	G	A	R	N/A	1,591	-	-	-	-
DeCA	REDSTONE ARSENAL	AL	11,918	1,781	-	A	R	R	R	R	A	R	A	R	N/A	1,209	-	-	-	-
DeCA	MCSPTACT KANSAS CITY MO	MO	3,237	1,075	-	A	R	R	R	R	A	A	G	R	N/A	352	-	-	-	-

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
DeCA	ROBINS AIR FORCE BASE	GA	13,039	3,047	-	A	R	R	R	R	N/A	R	A	N/A	N/A	1,214	-	-	-	-
DeCA	ROCK ISLAND ARSENAL	IL	3,143	560	-	A	R	R	R	R	N/A	G	G	N/A	N/A	398	-	-	-	-
DeCA	NAVSTA ROTA SP	Spain	3,365	-	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	792	-	-	-	-
DeCA	SAGAMI GENERAL DEPOT	Japan	362	120	-	A	R	R	R	R	G	N/A	N/A	G	N/A	35	-	-	-	-
DeCA	SAGAMIHARA FAMILY HOUSING AREA	Japan	5,888	1,274	-	A	R	R	R	R	G	N/A	N/A	G	N/A	602	-	-	-	-
DeCA	NAVSTA SAN DIEGO CA	CA	16,238	355	-	A	R	R	R	R	A	G	G	R	N/A	2,098	-	-	-	-
DeCA	MCB CAMP PENDLETON CA	CA	4,660	1,474	-	A	R	R	R	R	N/A	G	G	N/A	N/A	333	-	-	-	-
DeCA	NAVSUPPU SARATOGA SPRINGS NY	NY	1,971	298	-	A	R	R	R	R	N/A	G	A	N/A	N/A	240	-	-	-	-
DeCA	COMFLEACT SASEBO JA	Japan	2,684	217	-	A	R	R	R	R	G	N/A	N/A	G	N/A	236	-	-	-	-
DeCA	SCHINNEN EMMA MINE	Netherlands	5,011	1,119	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	144	-	-	-	-
DeCA	SCHOFIELD BARRACKS	HI	12,670	590	-	A	R	R	R	R	A	G	R	R	N/A	1,649	-	-	-	-
DeCA	ASKREN MANOR FAM HSG	Germany	8,748	1,372	-	A	R	R	R	R	A	N/A	N/A	R	N/A	456	-	-	-	-
DeCA	SCOTT AIR FORCE BASE	IL	20,263	5,601	-	A	R	R	R	R	N/A	G	G	N/A	N/A	1,359	-	-	-	-
DeCA	SELFRIDGE ANG BASE	MI	8,259	1,650	-	A	R	R	R	R	A	G	A	R	N/A	906	-	-	-	-
DeCA	SEMBACH ADMIN ANNEX (WING HQ)	Germany	5,612	2,231	-	A	R	R	R	R	R	N/A	N/A	R	N/A	469	-	-	-	-
DeCA	SEYMOUR JOHNSON AIR FORCE BASE	NC	12,850	3,092	-	A	R	R	R	R	A	A	G	G	N/A	981	-	-	-	-
DeCA	SHAW AIR FORCE BASE	SC	3,962	2,062	-	A	R	R	R	R	N/A	R	A	N/A	N/A	905	-	-	-	-
DeCA	SHEPPARD AIR FORCE BASE	TX	7,543	1,022	-	A	R	R	R	R	A	G	A	G	N/A	1,206	-	-	-	-
DeCA	NAS SIGONELLA IT	Italy	10,560	1,599	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	773	-	-	-	-
DeCA	NAVSTA EVERETT WA	WA	9,081	1,630	-	A	R	R	R	R	N/A	A	G	N/A	N/A	361	-	-	-	-
DeCA	SPANGDAHLEM AIR BASE	Germany	3,069	1,144	-	A	R	R	R	R	A	N/A	N/A	A	N/A	228	-	-	-	-
DeCA	CAMP WALKER	South Korea	2,955	1,758	-	A	R	R	R	R	A	N/A	N/A	R	N/A	640	-	-	-	-
DeCA	TINKER AIR FORCE BASE	OK	14,476	2,933	-	A	R	R	R	R	G	A	R	G	N/A	1,301	-	-	-	-
DeCA	TOBYHANNA ARMY DEPOT	PA	4,727	2,758	-	A	R	R	R	R	G	G	G	G	N/A	253	-	-	-	-
DeCA	TRAVIS AIR FORCE BASE	CA	10,190	4,023	-	A	R	R	R	R	A	G	G	R	N/A	1,442	-	-	-	-
DeCA	MCAGCC TWENTYNINE PALMS CA	CA	3,761	1,234	-	A	R	R	R	R	G	G	G	G	N/A	1,357	-	-	-	-
DeCA	TYNDALL AIR FORCE BASE	FL	9,363	1,102	-	A	R	R	R	R	A	R	G	A	N/A	1,141	-	-	-	-
DeCA	USAF ACADEMY	CO	13,955	3,103	-	A	R	R	R	R	G	G	R	G	N/A	997	-	-	-	-
DeCA	VANCE AIR FORCE BASE	OK	6,150	1,671	-	A	R	R	R	R	N/A	A	R	N/A	N/A	513	-	-	-	-
DeCA	VANDENBERG AIR FORCE BASE	CA	6,881	1,095	-	A	R	R	R	R	N/A	G	G	N/A	N/A	1,245	-	-	-	-
DeCA	CAMP EDERLE	Italy	10,511	2,809	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	489	-	-	-	-

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
DeCA	SOUTH CAMP VILSECK	Germany	7,854	2,063	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	465	-	-	-	-
DeCA	VOGELWEH FAMILY HOUSING ANNEX	Germany	10,608	2,371	-	A	R	R	R	R	A	N/A	N/A	R	N/A	525	-	-	-	-
DeCA	REED WALTER AMC FOREST GLEN	DC	5,440	802	-	A	R	R	R	R	A	N/A	N/A	G	N/A	693	-	-	-	-
DeCA	WEST POINT MIL RESERVATION	NY	11,647	2,527	-	A	R	R	R	R	G	G	A	G	N/A	875	-	-	-	-
DeCA	NAS WHIDBEY ISLAND WA	WA	9,884	2,169	-	A	R	R	R	R	A	A	G	R	N/A	395	-	-	-	-
DeCA	WHITE SANDS MISSLE RANGE NM	NM	5,306	568	-	A	R	R	R	R	A	G	R	R	N/A	765	-	-	-	-
DeCA	WHITEMAN AIR FORCE BASE	MO	8,773	1,027	-	A	R	R	R	R	N/A	A	G	N/A	N/A	726	-	-	-	-
DeCA	NAS WHITING FLD MILTON FL	FL	4,597	363	-	A	R	R	R	R	A	R	G	R	N/A	328	-	-	-	-
DeCA	HAINERBERG HSG AND SHOP CTR	Germany	10,383	3,007	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	555	-	-	-	-
DeCA	WRIGHT PATTERSON AIR FORCE BASE	OH	19,994	4,345	-	A	R	R	R	R	N/A	R	G	N/A	N/A	1,471	-	-	-	-
DeCA	COMFLEACT YOKOSUKA JA	Japan	14,068	497	-	A	R	R	R	R	N/A	N/A	N/A	N/A	N/A	1,028	-	-	-	-
DeCA	YOKOTA AIR BASE	Japan	27,461	13,176	-	R	R	R	R	R	G	N/A	N/A	G	N/A	-	-	-	-	-
DeCA	YONGSAN GARRISON	South Korea	19,688	5,662	-	R	R	R	R	R	G	N/A	N/A	G	N/A	-	-	-	-	-
DeCA	MCAS YUMA AZ	AZ	5,568	-	-	A	R	R	R	R	A	A	R	R	N/A	807	-	-	-	-
DeCA	YUMA PROVING GROUND	AZ	3,677	-	-	A	R	R	R	R	A	A	R	R	N/A	544	-	-	-	-
	Total DeCA															**227,182**	**-**	**-**	**-**	**-**
DFAS	DFAS LIMESTONE	ME	7,581			A	R	R	R	R	G	A	A	G	N/A					
DFAS	DFAS ROME	NY	29,683			A	R	R	R	R	A	G	A	R	N/A					
	Total DFAS															**-**	**-**	**-**	**-**	**-**
DLA	DLA DISTRIBUTION - SAN JOAQUIN	CA	195,474			G	G	G	G	G	G	G	G	G	N/A	349,703	38,856	-	-	388,559
DLA	DLA LAND AND MARITIME	OH	392,161			G	G	G	G	G	A	R	G	R	N/A	245,091	-	367,636	-	612,727
DLA	DLA HQC - FORT BELVOIR	VA	-			G	G	G	G	G	A	A	G	R	N/A	47,823	-	71,734	-	119,556
DLA	DLA PACIFIC	HI	-			G	G	G	G	G	A	G	R	R	N/A	10,461	-	4,483	-	14,945
DLA	DLA AVIATION	VA	318,947			G	G	G	G	G	A	A	G	R	N/A	173,357	-	260,035	-	433,392
DLA	DLA DISTRIBUTION - SUSQUEHANNA	PA	454,912			G	G	G	G	G	A	G	G	R	N/A	179,335	-	269,002	-	448,337
DLA	DLA DISTRIBUTION - MECHANICSBURG	PA	-			G	G	G	G	G	N/A	G	G	N/A	N/A	89,667	-	134,501	-	224,168
DLA	DLA TROOP SUPPORT	PA	-			G	G	G	G	G	A	G	G	R	N/A	11,956	-	17,933	-	29,889
DLA	DLA DISPOSITION SERVICES	MI	-			G	G	G	G	G	A	G	A	R	N/A	4,483	-	10,461	-	14,945
DLA	DLA EUROPE & AFRICA	Germany	-			G	G	G	G	G	G	N/A	N/A	G	N/A	17,933	-	41,845	-	59,778
	Total DLA															**1,129,809**	**38,856**	**1,177,631**	**-**	**2,346,296**
USMC	MCB QUANTICO	VA	838,003	355,222	96	A	R	A	R	G	G	A	G	G	N/A					
USMC	MCB CAMP LEJEUNE	NC	2,744,373	1,654,322	1,200	A	R	A	R	G	N/A	A	G	N/A	N/A					
USMC	MCAGCC TWENTYNINE PALMS	CA	1,105,352	1,014,958	7,175	A	R	A	A	G	N/A	G	G	N/A	N/A					

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
USMC	MCB CAMP PENDLETON	CA	983,352	513,250	1,645	A	R	A	R	G	R	G	G	R	N/A					
USMC	MCB HAWAII	HI	330,413	24,681	130	A	R	A	R	G	A	G	R	R	N/A					
USMC	MCB CAMP BUTLER	Japan	1,148,025	169,334	-	A	R	A	R	G	G	N/A	N/A	G	N/A					
USMC	CAMP MUJUK	South Korea	#VALUE!	-	-	A	R	A	R	G	G	N/A	N/A	G	N/A					
USMC	MCAS BEAUFORT	SC	201,477	58,507	1,664	A	R	A	R	G	N/A	R	A	N/A	N/A					
USMC	MCAS CHERRY POINT	NC	736,109	373,628	239	A	R	A	R	G	R	A	G	R	N/A					
USMC	MCAS YUMA	AZ	192,471	32,209	130	A	R	A	A	G	G	A	R	G	N/A					
USMC	MCAS MIRAMAR	CA	257,344	96,410	123	A	R	A	R	G	A	G	G	R	N/A			75,321		
USMC	MCAS IWAKUNI	Japan	488,620	314,434	-	A	R	A	R	G	G	N/A	N/A	G	N/A					
USMC	MCRD PARRIS ISLAND	SC	616,991	419,078	-	A	A	A	R	G	A	R	A	R	N/A					
USMC	MCRD SAN DIEGO CA	CA	289,064	217,975	1,075	A	A	A	R	G	A	G	G	R	N/A					
USMC	MCLB ALBANY	GA	401,113	189,518	-	A	A	A	R	G	N/A	R	A	N/A	N/A					
USMC	MCLB BARSTOW	CA	268,259	162,385	-	A	A	A	R	G	A	G	G	R	N/A					
USMC	MCSF BLOUNT ISLAND	FL	37,744	-	-	A	A	A	R	G	R	R	G	A	N/A					
USMC	CAMP ALLEN	VA	20,751	3,094	-	A	R	A	R	A	R	A	G	A	N/A					
USMC	MARBKS WASHINGTON DC	DC	47,398	21,822	-	A	R	A	R	A	R	N/A	N/A	A	N/A					
USMC	MARCORPS DIST 1	NY	54,201	56,463	-	A	R	A	R	A	A	G	A	R	N/A					
USMC	HDQTRS 4TH MARDIV NEW ORLEANS	LA	#VALUE!			A	R	A	R	G	A	R	A	R	N/A					
USMC	HDQTRS 4TH MAW NEW ORLEANS LA	LA	#VALUE!			A	R	A	R	G	A	R	A	R	N/A					
USMC	MARCORRESFOR NEW ORLEANS LA	LA	#VALUE!			A	R	A	R	G	A	R	A	R	N/A					
USMC	MCSPTACT KANSAS CITY MO	MO	#VALUE!			A	R	A	R	G	A	A	G	R	N/A					
	Total USMC															-	-	75,321	-	-
Navy	NSY PORTSMOUTH NH	NH	119,938	-	-	NE	NE	NE	NE	NE	A	R	R	R	N/A	3,466				
Navy	LANTORDCOM YORKTOWN VA	VA	202,712	-	-	NE	NE	NE	NE	NE	N/A	A	G	N/A	N/A					
Navy	NAS JRB WILLOW GROVE PA	PA	58,570	-	-	NE	NE	NE	NE	NE	N/A	G	G	N/A	N/A					
Navy	USNA ANNAPOLIS MD	MD	720,835	-	1	NE	NE	NE	NE	NE	A	A	A	R	N/A					
Navy	NAVMEDCLINIC ANNAPOLIS MD	MD	9,882	-	-	NE	NE	NE	NE	NE	A	A	A	R	N/A					
Navy	CARDEROCKDIV BETHESDA MD	MD	182,481	-	1	NE	NE	NE	NE	NE	R	A	A	R	N/A					
Navy	COMNAVDIST WASHINGTON DC	DC	584,678	-	1	NE	NE	NE	NE	NE	A	N/A	N/A	R	N/A					
Navy	NRL WASHINGTON DC	DC	1,012,770	-	-	NE	NE	NE	NE	NE	A	N/A	N/A	R	N/A					
Navy	NSWC DIV INDIAN HEAD MD	MD	1,363,159	-	435	NE	NE	NE	NE	NE	R	A	A	A	N/A					
Navy	NSWC DIV DAHLGREN VA	VA	491,627	-	-	NE	NE	NE	NE	NE	R	A	G	A	N/A					

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DoD Component	Installation	ST	FY2009 Energy Consumption (MMBTU)	On-Site Energy Production (MMBTU)	On site Renewable Energy Production (MMBTU)	Mission Compatibility					Resource Abundance/Economic Environment					Estimated Renewable Annual Production (MMBTU)				
						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
Navy	LANTORDCOM DET CHARLESTON SC	SC	406,241	-	300	NE	NE	NE	NE	NE	A	R	A	R	N/A					
Navy	NAVHOSP PENSACOLA FL	FL	51,779	-	-	NE	NE	NE	NE	NE	A	R	G	R	N/A					
Navy	NAS PENSACOLA FL	FL	1,058,950	-	12,140	NE	NE	NE	NE	NE	A	R	G	R	N/A					
Navy	NAVSUPPACT NEW ORLEANS LA	LA	180,577	-	-	NE	NE	NE	NE	NE	A	R	A	G	N/A					
Navy	NAS JRB NEW ORLEANS LA	LA	163,699	-	-	NE	NE	NE	NE	NE	A	R	A	R	N/A					
Navy	NAS JACKSONVILLE FL	FL	534,025	-	79	NE	NE	NE	NE	NE	G	R	G	G	N/A					
Navy	NAVSTA GREAT LAKES IL	IL	1,004,514	-	-	NE	NE	NE	NE	NE	G	G	G	G	N/A					
Navy	NAVHOSP GREAT LAKES IL	IL	224,782	-	-	NE	NE	NE	NE	NE	A	G	G	G	N/A					
Navy	NAS CORPUS CHRISTI TX	TX	193,018	-	-	NE	NE	NE	NE	NE	A	G	A	R	N/A					
Navy	NAVHOSP JACKSONVILLE FL	FL	115,537	-	-	NE	NE	NE	NE	NE	A	R	G	G	N/A					
Navy	NAVBASE SAN DIEGO CA	CA	1,273,966	-	4,953	NE	NE	NE	NE	NE	G	G	G	G	N/A					
Navy	NAVBASE CORONADO SAN DIEGO CA	CA	691,339	-	5,529	NE	NE	NE	NE	NE	A	G	G	R	N/A					
Navy	NAVUSEAWARCENDIV KEYPORT WA	WA	212,447	-	-	NE	NE	NE	NE	NE	A	A	G	R	N/A					
Navy	NAVMEDCLINIC KEY WEST FL	FL	8,411	-	-	NE	NE	NE	NE	NE	A	R	G	G	N/A					
Navy	NAVHOSP CORPUS CHRISTI TX	TX	60,136	-	-	NE	NE	NE	NE	NE	R	G	A	R	N/A					
Navy	NSY PEARL HARBOR HI	HI	131,761	-	-	NE	NE	NE	NE	NE	A	G	R	R	N/A	5,604				
Navy	NAVICP PHILADELPHIA PA	PA	232,445	-	-	NE	NE	NE	NE	NE	A	G	G	R	N/A					
Navy	NAWC AD PATUXENT RIVER MD	MD	1,121,872	-	0	NE	NE	NE	NE	NE	G	A	A	G	N/A					
Navy	NAS WHIDBEY ISLAND WA	WA	439,160	-	14,820	NE	NE	NE	NE	NE	R	A	G	R	N/A					14,698
Navy	NAVSUPPACT MID SOUTH MILLINGTON TN	TN	241,276	-	-	NE	NE	NE	NE	NE	A	R	R	G	N/A					
Navy	AFRADBIORSCHINST BETHESDA MD	MD	33,538	-	-	NE	NE	NE	NE	NE	A	A	A	R	N/A					
Navy	NAVEODTECHDIV INDIAN HEAD MD	MD	43,989	-	-	NE	NE	NE	NE	NE	A	A	A	G	N/A					
Navy	PACMISRANFAC HAWAREA BARKING SANDS HI	HI	79,343	-	3,412	NE	NE	NE	NE	NE	A	G	R	A	N/A					
Navy	NIOC SUGAR GROVE WV	WV	14,636	-	-	NE	NE	NE	NE	NE	G	R	R	G	N/A					
Navy	NAVMAG INDIAN ISLAND WA	WA	11,620	-	-	NE	NE	NE	NE	NE	G	A	G	G	N/A					
Navy	NSA MECHANICSBURG PA	PA	384,245	-	-	NE	NE	NE	NE	NE	A	G	G	R	N/A					
Navy	NAVSTA BREMERTON	WA	251,182	-	11,595	NE	NE	NE	NE	NE	G	A	G	G	N/A					19,251
Navy	COMFLEACT CHINHAE KS	KS	31,243	-	7	NE	NE	NE	NE	NE	N/A	G	G	N/A	N/A					
Navy	NAVDENFACBR LEMOORE CA	CA	1,294	-	-	NE	NE	NE	NE	NE	N/A	G	G	N/A	N/A					
Navy	NAVHOSP TWENTYNINE PALMS CA	CA	30,834	-	-	NE	NE	NE	NE	NE	A	G	G	R	N/A					
Navy	NAVRADTRANFAC SADDLEBUNCH KEYS	FL	2,470	-	-	NE	NE	NE	NE	NE	A	R	G	G	N/A					

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
Navy	NSWC PT HUENEME DET SAN DIEGO	CA	6,205	-	-	NE	NE	NE	NE	NE	R	G	G	R	N/A					
Navy	NAVFAC MARIANAS	Guam	165,866	-	-	NE	NE	NE	NE	NE	A	N/A	N/A	R	N/A					
Navy	NAVJNTSERVACT NS TOKYO JA	Japan	51,075	-	-	NE	NE	NE	NE	NE	G	N/A	N/A	G	N/A					
Navy	TRIREFFAC KINGS BAY GA	GA	139,503	-	-	NE	NE	NE	NE	NE	A	R	A	R	N/A					
Navy	PSNS AND IMF BREMERTON	WA	1,641,046	-	-	NE	NE	NE	NE	NE	A	A	G	R	N/A	3,313				
Navy	NAVCONBRIG CHARLESTON SC	SC	24,598	-	-	NE	NE	NE	NE	NE	A	R	A	G	N/A					
Navy	NSA NORFOLK VA	VA	507,831	-	-	NE	NE	NE	NE	NE	A	A	G	R	N/A	8,224				
Navy	NAF EL CENTRO CA	CA	66,346	-	1,650	NE	NE	NE	NE	NE	G	G	G	G	N/A	1,766				
Navy	NAS BRUNSWICK ME	ME	148,936	-	-	NE	NE	NE	NE	NE	A	A	A	R	N/A					
Navy	NAS OCEANA VA	VA	819,015	-	70,999	NE	NE	NE	NE	NE	N/A	A	G	N/A	N/A					
Navy	NAS KINGSVILLE TX	TX	115,245	-	-	NE	NE	NE	NE	NE	G	G	A	G	N/A					
Navy	LANTORDCOM DET EARLE COLTS NECK NJ	NJ	177,084	-	-	NE	NE	NE	NE	NE	G	A	R	G	N/A					
Navy	NAS FALLON NV	NV	179,064	-	-	NE	NE	NE	NE	NE	A	G	R	R	N/A					
Navy	NAS WHITING FIELD MILTON FL	FL	127,843	-	-	NE	NE	NE	NE	NE	A	R	G	R	N/A					
Navy	NAVSTA GUANTANAMO BAY CU	Cuba	1,355,162	-	8,343	NE	NE	NE	NE	NE	R	N/A	N/A	R	N/A	34,376		13,454		
Navy	NAVAIRWARCENWPNDIV CHINA LAKE CA	CA	560,229	-	4,097,161	NE	NE	NE	NE	NE	N/A	G	G	N/A	N/A					
Navy	NAVWPNSTA SEAL BEACH CA	CA	56,265	-	164	NE	NE	NE	NE	NE	N/A	G	G	N/A	N/A					
Navy	NSA ORLANDO FL	FL	27,204	-	-	NE	NE	NE	NE	NE	A	R	G	R	N/A					
Navy	NSA PANAMA CITY FL	FL	147,746	-	-	NE	NE	NE	NE	NE	N/A	R	G	N/A	N/A					
Navy	NSA CRANE IN	IN	818,843	-	-	NE	NE	NE	NE	NE	G	R	A	G	N/A					
Navy	NAVHOSP GUANTANAMO BAY CU	Cuba	41,286	-	-	NE	NE	NE	NE	NE	R	N/A	N/A	A	N/A					
Navy	COMFLEACT YOKOSUKA JA	Japan	422,731	-	1	NE	NE	NE	NE	NE	G	N/A	N/A	G	N/A					
Navy	NAVAMBCARECEN GROTON CT	CT	41,062	-	-	NE	NE	NE	NE	NE	N/A	A	A	N/A	N/A					
Navy	NAVBASE GUAM	Guam	494,473	-	256	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A		26,311			
Navy	NSWC DET WHITE SANDS NM	NM	13,802	-	-	NE	NE	NE	NE	NE	N/A	G	R	N/A	N/A					
Navy	NAVSURFWARCEN DET BAYVIEW ID	ID	16,826	-	-	NE	NE	NE	NE	NE	N/A	R	R	N/A	N/A					
Navy	NSD MONTEREY CA	CA	163,420	-	97	NE	NE	NE	NE	NE	R	G	G	A	N/A					
Navy	NAVOBSY WASHINGTON DC	DC	30,131	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
Navy	BRDENCLINIC GUAM	Guam	1,106	-	-	NE	NE	NE	NE	NE	A	N/A	N/A	R	N/A					
Navy	NAF ATSUGI JA	Japan	654,836	-	34	NE	NE	NE	NE	NE	A	N/A	N/A	R	N/A	2,467				
Navy	NAVSUPPACT NAPLES IT	Italy	408,348	-	1,334	NE	NE	NE	NE	NE	A	N/A	N/A	R	N/A	1,584				

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
Navy	CBC GULFPORT MS	MS	199,230	-	-	NE	NE	NE	NE	NE	N/A	R	A	N/A	N/A					
Navy	FISC YOKOSUKA JA	Japan	12,157	-	-	NE	NE	NE	NE	NE	A	N/A	N/A	R	N/A					
Navy	NAVSTA NEWPORT RI	RI	427,089	-	-	NE	NE	NE	NE	NE	G	R	R	G	N/A	4,298				
Navy	NAVSTA NORFOLK VA	VA	1,672,264	-	-	NE	NE	NE	NE	NE	N/A	A	G	N/A	N/A					
Navy	NAVSURFWARCEN DET DANIA FL	FL	1,559	-	-	NE	NE	NE	NE	NE	G	R	G	G	N/A					
Navy	COMFLEACT SASEBO JA	Japan	538,451	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A	1,397				
Navy	NSA ATHENS	GA	45,480	-	-	NE	NE	NE	NE	NE	N/A	R	A	N/A	N/A					
Navy	NAVFAC HAWAII	HI	17,783	-	2,397	NE	NE	NE	NE	NE	G	G	R	G	N/A					
Navy	NAVSHIPREPFAC YOKOSUKA JA	Japan	65,160	-	-	NE	NE	NE	NE	NE	R	N/A	N/A	A	N/A					
Navy	NAVSTA PEARL HARBOR HI	HI	1,248,432	-	36,010	NE	NE	NE	NE	NE	G	G	R	G	N/A					
Navy	NAS SIGONELLA IT	Italy	307,845	-	12,449	NE	NE	NE	NE	NE	G	N/A	N/A	G	N/A	2,775				
Navy	NAVSUPPACT BAHHRAIN	Bahrain	229,041	-	-	NE	NE	NE	NE	NE	G	N/A	N/A	G	N/A					
Navy	NAS LEMOORE CA	CA	451,134	-	460	NE	NE	NE	NE	NE	A	G	G	R	N/A	9,768				
Navy	NAS MERIDIAN MS	MS	189,438	-	-	NE	NE	NE	NE	NE	N/A	R	A	N/A	N/A					
Navy	NAVFAC SOUTHWEST	CA	18,364	-	-	NE	NE	NE	NE	NE	G	G	G	G	N/A					
Navy	NAVSURFWARCENDIV PORT HUENEME CA	CA	34,801	-	-	NE	NE	NE	NE	NE	A	G	G	R	N/A					
Navy	NAVBASE POINT LOMA	CA	306,557	-	589	NE	NE	NE	NE	NE	A	G	G	R	N/A					
Navy	JACKSONVILLE DET KEY WEST FL	FL	1,259	-	-	NE	NE	NE	NE	NE	N/A	R	G	N/A	N/A					
Navy	AUTEC ANDROS ISLAND BAHAMAS	Bahamas	206,094	-	44	NE	NE	NE	NE	NE	A	N/A	N/A	R	N/A					
Navy	NSWC DIV CORONA CA	CA	53,941	-	-	NE	NE	NE	NE	NE	A	G	G	R	N/A					
Navy	NAVFAC MIDWEST	IL	275,316	-	-	NE	NE	NE	NE	NE	G	G	G	G	N/A					
Navy	NAVFAC SOUTHEAST PENSACOLA DET	FL	129,532	-	-	NE	NE	NE	NE	NE	A	R	G	R	N/A					
Navy	NAVFAC FAR EAST	Japan	912,331	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
Navy	NSWCCD SSES PHILADELPHIA PA	PA	137,288	-	-	NE	NE	NE	NE	NE	G	G	G	G	N/A					
Navy	NAVAVNDEPOT JACKSONVILLE FL	FL	491,074	-	-	NE	NE	NE	NE	NE	G	R	G	G	N/A					
Navy	NAVAVNDEPOT NORTH ISLAND CA	CA	293,057	-	-	NE	NE	NE	NE	NE	G	G	G	G	N/A					
Navy	NAVAVNDEPOT CHERRY PT NC	NC	599,653	-	-	NE	NE	NE	NE	NE	N/A	A	G	N/A	N/A					
Navy	DOD SCHOOLS GUANTANAMO BAY	Cuba	32,130	-	-	NE	NE	NE	NE	NE	A	N/A	N/A	G	N/A					
Navy	SPAWARSYSCEN SAN DIEGO CA	CA	205,624	-	-	NE	NE	NE	NE	NE	A	G	G	R	N/A					
Navy	NAVDENCEN SOUTHWEST SAN DIEGO CA	CA	11,981	-	-	NE	NE	NE	NE	NE	N/A	G	G	N/A	N/A					
Navy	NAVHOSP LEMOORE CA	CA	42,707	-	-	NE	NE	NE	NE	NE	A	G	G	R	N/A					

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
Navy	NAVHOSP NAPLES IT	Italy	43,834	-	-	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
Navy	NAVHOSP OAK HARBOR WA	WA	23,244	-	-	NE	NE	NE	NE	NE	N/A	A	G	N/A	N/A					
Navy	NAVMEDCLINIC PATUXENT RIVER MD	MD	5,624	-	-	NE	NE	NE	NE	NE	A	A	A	R	N/A					
Navy	NAVHOSP ROTA SP	Spain	57,937	-	-	NE	NE	NE	NE	NE	G	N/A	N/A	G	N/A					
Navy	NAVUNSEAWARCENDIV NEWPORT RI	RI	141,882	-	-	NE	NE	NE	NE	NE	N/A	R	R	N/A	N/A					
Navy	NAVSUPPACT SOUDA BAY GR	Greece	42,120	-	1,437	NE	NE	NE	NE	NE	A	N/A	N/A	R	N/A	4,002				
Navy	SINGAPORE AREA COORDINATOR	Singapore	28,060	-	-	NE	NE	NE	NE	NE	A	N/A	N/A	R	N/A					
Navy	NAVAMBCARECEN NEWPORT RI	RI	23,206	-	-	NE	NE	NE	NE	NE	A	R	R	G	N/A					
Navy	NAVHOSP CAMP PENDLETON CA	CA	242,346	-	-	NE	NE	NE	NE	NE	A	G	G	R	N/A					
Navy	NAVHOSP YOKOSUKA JA	Japan	18,619	-	-	NE	NE	NE	NE	NE	A	N/A	N/A	R	N/A					
Navy	NAVRESREDCOM MIDLANT WASHINGTON DC	VA	79,881	-	-	NE	NE	NE	NE	NE	A	A	G	R	N/A					
Navy	NSU SARATOGA SPRINGS NY	NY	9,457	-	-	NE	NE	NE	NE	NE	R	G	A	R	N/A					
Navy	NAVRESREDCOM NORTHWEST EVERETT WA	WA	33,951	-	-	NE	NE	NE	NE	NE	G	A	G	G	N/A					
Navy	NAVRESREDCOM MIDWEST	IL	29,854	-	-	NE	NE	NE	NE	NE	A	G	G	R	N/A					
Navy	NAVAIRENGCEN LAKEHURST NJ	NJ	319,362	-	-	NE	NE	NE	NE	NE	A	A	R	G	N/A					
Navy	UNISERUOFHEASCN BETHESDA MD	MD	157,353	-	-	NE	NE	NE	NE	NE	N/A	A	A	N/A	N/A					
Navy	NAVRESREDCOM MIDSOUTH	TN	23,000	-	-	NE	NE	NE	NE	NE	N/A	R	R	N/A	N/A					
Navy	NAVRESREDCOM SOUTHWEST SAN DIEGO CA	CA	16,964	-	-	NE	NE	NE	NE	NE	A	G	G	R	N/A					
Navy	NAVRESREDCOM NE NEWPORT RI	RI	35,141	-	-	NE	NE	NE	NE	NE	A	R	R	R	N/A					
Navy	SUBASE BANGOR WA	WA	661,651	-	-	NE	NE	NE	NE	NE	A	A	G	R	N/A					
Navy	NAVHOSP OKINAWA JA	Japan	67,340	-	-	NE	NE	NE	NE	NE	A	N/A	N/A	G	N/A					
Navy	NAVSUPPFAC DIEGO GARCIA	Diego Garcia	689,175	-	7	NE	NE	NE	NE	NE	N/A	N/A	N/A	N/A	N/A					
Navy	TRITRAFAC KINGS BAY GA	GA	71,898	-	-	NE	NE	NE	NE	NE	A	R	A	G	N/A					
Navy	AEGIS TRAREDCEN DAHLGREN VA	VA	49,810	-	-	NE	NE	NE	NE	NE	G	A	G	G	N/A					
Navy	SWFLANT KINGS BAY GA	GA	244,498	-	-	NE	NE	NE	NE	NE	A	R	A	R	N/A					
Navy	NOPF WHIDBEY ISLAND	WA	12,751	-	-	NE	NE	NE	NE	NE	A	A	G	G	N/A					
Navy	NAVFAC WASHINGTON DC	DC	9,447	-	-	NE	NE	NE	NE	NE	A	N/A	N/A	G	N/A					
Navy	NAVSTA EVERETT WA	WA	308,051	-	1,228	NE	NE	NE	NE	NE	N/A	A	G	N/A	N/A		887			
Navy	NAVBASE VENTURA COUNTY	CA	476,144	-	2,265	NE	NE	NE	NE	NE	A	G	G	R	N/A		3,582			
Navy	NUWC NEWPORT NE DETS	RI	2,625	-	-	NE	NE	NE	NE	NE	A	R	R	R	N/A					
Navy	NAVRADSTA T JIM CREEK OSO WA	WA	43,100	-	-	NE	NE	NE	NE	NE	A	A	G	R	N/A					

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						Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP	Solar	Wind	Bio	Gthm	GSHP
Navy	NAS JRB FORT WORTH TX	TX	330,122	-	73	NE	NE	NE	NE	NE	A	G	A	R	N/A					
Navy	COMFLEACT OKINAWA	Japan	92,043	-	253	NE	NE	NE	NE	NE	A	N/A	N/A	R	N/A					
Navy	NSB NEW LONDON CT	CT	1,960,205	-	-	NE	NE	NE	NE	NE	A	A	A	R	N/A					
Navy	NSY NORFOLK VA	VA	995,407	-	-	NE	NE	NE	NE	NE	A	A	G	R	N/A					
Navy	NAVFAC MID-ATLANTIC	VA	2,452,321	-	-	NE	NE	NE	NE	NE	A	A	G	R	N/A					
Navy	NAS KEY WEST FL	FL	226,104	-	48	NE	NE	NE	NE	NE	N/A	R	G	N/A	N/A					
Navy	NAVSUPACT PORTSMOUTH	NH	417,098	-	-	NE	NE	NE	NE	NE	A	R	R	R	N/A					
Navy	NSB KINGS BAY GA	GA	352,682	-	-	NE	NE	NE	NE	NE	A	R	A	R	N/A	2,191				
Navy	NAVSTA MAYPORT FL	FL	451,705	-	-	NE	NE	NE	NE	NE	A	R	G	R	N/A					
Navy	NAB LITTLE CREEK VA	VA	758,427	-	-	NE	NE	NE	NE	NE	G	A	G	G	N/A	2,650				
Navy	NAVSTA ROTA SP	Spain	322,601	-	21	NE	NE	NE	NE	NE	A	N/A	N/A	R	N/A	18,647				
	Total Navy															**106,728**	**30,780**	**13,454**	**-**	**33,949**
NGA	ST. LOUIS AIR FORCE STATION	MO	99,007	-		NE	NE	NE	NE	NE	R	A	G	R	N/A	-	-	-	-	-
NGA	ST. LOUIS AFS ANNEX SOUTH	MO	91,783	-		NE	NE	NE	NE	NE	A	A	G	G	N/A	-	-	-	-	-
NSA	FORT MEADE	MD	2,626,946	-		G	R	R	R	G	R	A	A	R	N/A					
	Total NGA															**-**	**-**	**-**	**-**	**-**
TMA	NMC SAN DIEGO	CA	278,903	-		G	R	R	R	R	A	G	G	R	N/A	22,860	-	-	-	-
TMA	NMC PORTSMOUTH	VA	415,004	-		G	R	R	R	G	N/A	A	G	N/A	N/A	36,618	-	-	-	10,454
TMA	NNMC BETHESDA	MD	729,798	-		G	R	R	R	R	N/A	A	A	N/A	N/A	56,021	-	-	-	-
TMA	NH BEAUFORT	SC	80,400	-		G	R	R	R	G	R	R	A	R	N/A	7,932	-	-	-	10,454
TMA	NH BREMERTON	WA	82,502	-		A	R	R	R	R	A	A	G	G	N/A	2,236	-	-	-	-
TMA	NH CHARLESTON	SC	62,857	-		G	R	R	R	G	R	R	A	R	N/A	7,089	-	-	-	2,439
TMA	NH GUAM	MI	63,077	-		G	R	R	R	G	A	G	A	R	N/A	4,827	-	-	-	2,335
TMA	FT DETRICK	MD	1,001,671	55		G	R	G	R	A	A	A	A	R	N/A	68,240	-	10,200	-	-
TMA	WALTER REED	DC	955,671		51,410	R	R	R	R	R	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-
	Total TMA															**205,822**	**-**	**10,200**	**-**	**25,683**
WHS	PENTAGON RESERVATION	DC	1,785,345	55	175	A	A	R	A	A	N/A	N/A	N/A	N/A	N/A					

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Appendix I: Simple Intensity by Installation[1]

Component	Installation Name	City	State / Country	Simple Intensity (BBTU/GSF) Goal Subject	Total Site Delivered Energy (BBTU) Goal Subject	Gross Square Footage ('000 Sqft) Goal Subject
Air Force	RAMSTEIN AIR BASE	Ramstein	Germany	73.10	1,357.89	18,577
Air Force	SPANGDAHLEM	Spangdahlem AB	Germany	60.58	537.67	8,875
Air Force	LACKLAND AIR FORCE BASE	Unknown	Texas	135.03	2,197.00	16,270
Air Force	SCOTT AFB	Belleville	Illinois	126.66	649.15	5,125
Air Force	TRAVIS AFB	Fairfield	California	86.31	585.37	6,782
Air Force	EARECKSON AS	Adak Station	Alaska	128.75	269.48	2,093
Air Force	EIELSON	Unknown	Alaska	358.34	2,426.30	6,771
Air Force	ELMENDORF AFB	Unknown	Alaska	164.46	1,309.27	7,961
Air Force	HICKAM AFB	Hickam AFBase	Hawaii	66.13	297.19	4,494
Air Force	KADENA AIR BASE	Kadena Air Base Okinawa	Japan	58.61	1,411.82	24,090
Air Force	KUNSAN AIR BASE	Kunsan	South Korea	101.27	369.23	3,646
Air Force	MISAWA AIR BASE	Misawa AFB	Japan	144.02	1,318.75	9,157
Air Force	OSAN	Osan AFB	South Korea	81.47	682.23	8,374
Air Force	YOKOTA AB	Yokota AFB	Japan	140.56	1,443.99	10,273
Air Force	CANNON AIR FORCE BASE	Clovis	New Mexico	109.88	276.89	2,520
Air Force	HURLBURT FIELD	Unknown	Florida	109.64	465.66	4,247
Air Force	ANTIGUA AS	Antigua	West Indies	463.66	77.90	168
Air Force	ASCENSION AAF	Ascension AAF	Ascension Island	507.00	200.27	395
Air Force	BUCKLEY AFB	Aurora	Colorado	210.71	649.00	3,080
Air Force	CAPE CANVERAL AFS	Cape Canveral	Florida	135.41	465.28	3,436
Air Force	CAPE COD	Cape Cod	Massachusetts	593.49	58.76	99
Air Force	CAVALIER	Cavalier	North Dakota	644.48	259.08	402
Air Force	CHEYENNE MOUNTAIN AFS	Unknown	Colorado	277.00	118.83	429

[1] The intensity calculated for each installation in the table below is the simple ratio of an installation's Goal Subject total Site Delivered Energy (in Billion BTU) to its Goal Subject Total Building Area (in Thousand Gross Square Feet).

Component	Installation Name	City	State / Country	Simple Intensity (BBTU/GSF) Goal Subject	Total Site Delivered Energy (BBTU) Goal Subject	Gross Square Footage ('000 Sqft) Goal Subject
Air Force	CLEAR AIR FORCE STATION	Clear A.F.B.	Alaska	941.55	833.27	885
Air Force	SCHRIEVER AFB	Colorado Spgs	Colorado	240.05	458.74	1,911
Air Force	LOS ANGELES AFB	El Segundo	California	88.02	104.92	1,192
Air Force	EGLIN C-6	Valparaiso	Florida	270.56	54.92	203
Air Force	MOLOKAI STATION HI	Molokai	Hawaii	323.00	2.26	7
Air Force	New Boston AS	New Boston	NH	215.06	25.16	117
Air Force	ONIZUKA	Sunnyvale	California	120.53	74.00	614
Air Force	PATRICK	Patrick AFB	Florida	91.51	291.38	3,184
Air Force	PETERSON AFB	Colorado Spgs	Colorado	171.39	613.59	3,580
Air Force	PILLAR POINT AFS	Piilar Point AS	California	264.57	6.09	23
Air Force	SANTA YNEZ PEAK	Santa Barbara	California	305.00	0.31	1
Air Force	THULE AIR BASE	Thule	Greenland	447.30	908.90	2,032
Air Force	VANDENBERG MAIN BASE	Lompoc	California	139.49	918.01	6,581
Air Force	AVIANO AIR BASE	Aviano AB	Italy	48.98	296.19	6,047
Air Force	INCIRLIK AB	Adana	Turkey	54.81	310.94	5,673
Air Force	IZMIR AIR STATION	Izmir	Turkey	86.46	12.28	142
Air Force	LAJES FIELD	Lajesfield	Portugal	38.72	107.46	2,775
Air Force	MORON AB	Moran AB	Spain	33.15	25.76	777
Air Force	RAF ALCONBURY	Cambridge	United Kingdom	84.84	180.54	2,128
Air Force	RAF CROUGHTON	Unknown	United Kingdom	101.97	118.69	1,164
Air Force	RAF FAIRFORD	Fairford	United Kingdom	42.00	64.43	1,534
Air Force	RAF LAKENHEATH	Lakenheath	United Kingdom	81.47	650.08	7,979
Air Force	RAF MILDENHALL	Mildenhall	United Kingdom	105.66	332.41	3,146
Air Force	BARKSDALE AIR FORCE BASE	Barksdale AFB	Louisiana	88.38	445.89	5,045
Air Force	BEALE AF BASE	Beale AFB	California	81.77	240.49	2,941
Air Force	CREECH	Las Vegas	Nevada	124.20	88.06	709
Air Force	NELLIS	Las Vegas	Nevada	103.33	609.35	5,897
Air Force	DAVIS MONTHAN AFB	Tucson	Arizona	88.46	402.83	4,554
Air Force	DYESS AIR FORCE BASE	Abilene	Texas	98.35	322.01	3,274
Air Force	ELLSWORTH AFB	Ellsworth AFB	South Dakota	91.97	669.79	7,283
Air Force	HOLLOMAN	Holloman AFB	New Mexico	96.45	506.19	5,248

Component	Installation Name	City	State / Country	Simple Intensity (BBTU/GSF) Goal Subject	Total Site Delivered Energy (BBTU) Goal Subject	Gross Square Footage ('000 Sqft) Goal Subject
Air Force	LANGLEY AFB	Langley AFB	Virginia	133.07	734.44	5,519
Air Force	MINOT AFB	Minot AFB	North Dakota	101.59	771.95	7,599
Air Force	MOODY AIR FORCE BASE	Moody AFB	Georgia	85.78	232.45	2,710
Air Force	MT HOME AFB	Unknown	Idaho	97.03	520.40	5,363
Air Force	OFFUTTAIRFORCEBSE	Offutt A.F.B.	Nebraska	146.03	913.84	6,258
Air Force	SEYMOUR JOHNSON AIR FORCE BS	Seymour Johnson AFB	North Carolina	81.96	388.10	4,735
Air Force	SHAW AIR FORCE BASE	Shaw AFB	South Carolina	103.94	306.41	2,948
Air Force	Tonapah Aux. Field	Tonapah	Nevada	87.39	214.54	2,455
Air Force	WHITEMAN	Unknown	Missouri	139.28	699.34	5,021
Air Force	U S A F ACADEMY	Air Force Academy	Colorado	155.19	985.91	6,353
Air Force	ALTUS AIR FORCE BASE	Unknown	Oklahoma	90.98	241.46	2,654
Air Force	COLUMBUS	Unknown	Mississippi	118.99	175.03	1,471
Air Force	GOODFELLOW AFB	Unknown	Texas	97.08	216.68	2,232
Air Force	Maxwell AFB -Gunter Annex	Montgomery	Alabama	185.24	311.95	1,684
Air Force	KEESLER AFB	Biloxi	Mississippi	106.56	749.14	7,030
Air Force	LAUGHLIN AIR FORCE BASE	Unknown	Texas	86.31	169.26	1,961
Air Force	LUKE AIR FORCE BASE	Luke AFB	Arizona	75.05	280.61	3,739
Air Force	MAXWELL AFB	Maxwell AFB	Alabama	90.91	403.92	4,443
Air Force	RANDOLPH AIR FORCE BASE	Unknown	Texas	97.76	404.33	4,136
Air Force	SHEPPARD AFB	Unknown	Texas	105.33	829.35	7,874
Air Force	TYNDALL AFB	Unknown	Florida	96.91	408.58	4,216
Air Force	VANCE AIR FORCE BASE	Unknown	Oklahoma	88.10	120.61	1,369
Air Force	ANDREWS AIR FORCE BASE	Andrews AFB	Maryland	82.04	644.31	7,854
Air Force	BOLLING AIR FORCE BASE	Unknown	District of Columbia	97.54	176.74	1,812
Air Force	ARNOLD	Unknown	Tennessee	514.46	971.29	1,888
Air Force	EDWARDS AFB	Unknown	California	141.78	1,229.96	8,675
Air Force	EGLIN AFB	Valparaiso	Florida	125.44	1,112.19	8,866
Air Force	HILL	Unknown	Utah	205.15	2,648.08	12,908
Air Force	KIRTLAND	Kirtland AFB	New Mexico	99.15	737.37	7,437
Air Force	HANSCOM AFB	Bedford	Massachusetts	155.16	476.66	3,072
Air Force	ROBINS AIR FORCE BASE	Robins AFB	Georgia	164.87	1,948.76	11,820

Component	Installation Name	City	State / Country	Simple Intensity (BBTU/GSF) Goal Subject	Total Site Delivered Energy (BBTU) Goal Subject	Gross Square Footage ('000 Sqft) Goal Subject
Air Force	TINKER AFB	Oklahoma City	Oklahoma	173.46	3,280.07	18,910
Air Force	WRIGHT-PATTERSON AFB	Wright-Patterson AFB	Ohio	195.94	2,861.09	14,602
Air Force	BUCKLEY ANNEX	Aurora	Colorado	161.13	100.38	623
Air Force	DOBBINS AIR RESERVE BASE	Unknown	Georgia	122.02	112.87	925
Air Force	GRISSOM ARB	Unknown	Indiana	114.21	119.81	1,049
Air Force	HOMESTEAD AIR RESERVE BASE	Homestead	Florida	71.90	73.19	1,018
Air Force	MARCH AIR RESERVE BASE	Unknown	California	68.47	124.69	1,821
Air Force	MINN-ST PAUL	Minneapolis	Minnesota	108.57	80.23	739
Air Force	NIAGARA FALLS	Unknown	New York	125.09	78.56	628
Air Force	PGH IAP ARS	Unknown	Pennsylvania	87.18	46.64	535
Air Force	WESTOVER ARB	Unknown	Massachusetts	124.73	178.62	1,432
Air Force	YOUNGSTOWN JOINT AIR RESERVE STATION	Vienna	Ohio	92.65	66.71	720
Air Force	CHARLESTON AFB	Unknown	South Carolina	75.55	326.62	4,323
Air Force	DOVER AFB	Unknown	Delaware	139.66	478.89	3,429
Air Force	FAIRCHILD AIR FORCE BASE	Unknown	Washington	118.03	487.23	4,128
Air Force	GRAND FORKS AFB	Grand Forks AFB	North Dakota	115.10	655.94	5,699
Air Force	LITTLEROCK AFB	Unknown	Arkansas	100.39	330.70	3,294
Air Force	MACDILLAFB	Unknown	Florida	117.04	558.75	4,774
Air Force	MCCHORD AFB	Unknown	Washington	124.68	519.67	4,168
Air Force	MCCONNELL	Wichita	Kansas	95.63	364.65	3,813
Air Force	MCGUIRE AFB	McGuire AFB	New Jersey	82.92	1,065.64	12,851
Air Force	POPE AIR FORCE BASE	Spring Lake	North Carolina	64.73	166.09	2,566
Air Force	F E WARREN AFB	Cheyenne	Wyoming	124.57	385.92	3,098
Air Force	MALMSTROM	Malmstrom AFB	Montana	168.81	525.67	3,114
Air Natl Guard	EIELSON	Unknown	Alaska	89.38	26.00	291
Air Natl Guard	ROBINS AIR FORCE BASE	Robins AFB	Georgia	67.07	49.70	741
Air Natl Guard	TED STEVENS IAP	Unknown	Alaska	124.92	61.65	494
Air Natl Guard	MONTGOMERY REGIONAL AIRPORT ANG BASE	Montgomery	Alabama	63.72	32.83	515

Component	Installation Name	City	State / Country	Simple Intensity (BBTU/GSF) Goal Subject	Total Site Delivered Energy (BBTU) Goal Subject	Gross Square Footage ('000 Sqft) Goal Subject
Air Natl Guard	BIRMINGHAM APRT	Unknown	Alabama	99.24	36.03	363
Air Natl Guard	LITTLEROCK AFB	Unknown	Arkansas	99.69	29.74	298
Air Natl Guard	FT SMITH MAP	Fort Smith	Arkansas	74.98	29.15	389
Air Natl Guard	SKY HARBOR IAP	Unknown	Arizona	74.71	20.66	277
Air Natl Guard	TUCSON IAP ARZ	Tucson	Arizona	76.23	48.78	640
Air Natl Guard	FRESNO YOSEMITE INTERNATIONAL ANG	Fresno	California	71.33	23.86	335
Air Natl Guard	MOFFETT FIELD	Moffett Field	California	44.70	19.21	430
Air Natl Guard	NORTH HIGHLANDS ANG STATION	North Highlands	California	49.11	9.92	202
Air Natl Guard	MARCH AIR RESERVE BASE	Unknown	California	49.47	14.12	285
Air Natl Guard	CHANNEL ISLANDS ANG STATION	Unknown	California	41.73	14.41	345
Air Natl Guard	BUCKLEY AFB	Aurora	Colorado	234.06	132.67	567
Air Natl Guard	BRADLEY IAP	Unknown	Connecticut	71.99	27.69	385
Air Natl Guard	ANDREWS AIR FORCE BASE	Andrews AFB	Maryland	78.97	39.02	494
Air Natl Guard	166 AIRLIFT WING	Unknown	Delaware	92.16	28.56	310
Air Natl Guard	JACKSONVILLE IAP	Unknown	Florida	62.82	26.70	425
Air Natl Guard	SAVANNAH/HILTON HEAD IAP	Garden City	Georgia	50.51	43.74	866
Air Natl Guard	ANDERSEN AF BASE	Yigo	Guam	89.40	4.40	49
Air Natl Guard	HICKAM AFB	Hickam AFBase	Hawaii	43.07	37.47	870

Component	Installation Name	City	State / Country	Simple Intensity (BBTU/GSF) Goal Subject	Total Site Delivered Energy (BBTU) Goal Subject	Gross Square Footage ('000 Sqft) Goal Subject
Air Natl Guard	DES MOINES INTERNATIONAL AIRPORT	Unknown	Iowa	100.99	41.75	413
Air Natl Guard	SIOUX GATEWAY APT / COL BUD DAY FIELD (ANG)	Sioux City	Iowa	94.97	46.39	489
Air Natl Guard	BOISE AIR TERML	Unknown	Idaho	66.59	35.20	529
Air Natl Guard	SCOTT AFB	Belleville	Illinois	98.83	33.90	343
Air Natl Guard	GENERAL WAYNE A. DOWNING PEORIA INTERNATIONAL AIRPORT	Peoria	Illinois	85.35	35.63	417
Air Natl Guard	ABRAHAM LINCOLN CAPITAL AIRPORT	Springfield	Illinois	84.70	26.72	315
Air Natl Guard	FORT WAYNE IAP	Fort Wayne	Indiana	102.88	41.85	407
Air Natl Guard	HULMAN FLD	Unknown	Indiana	95.68	35.80	374
Air Natl Guard	FORBES FIELD ANG	Topeka	Kansas	112.26	48.31	430
Air Natl Guard	MCCONNELL	Wichita	Kansas	124.14	81.84	659
Air Natl Guard	LOUISVILLE IAP-STANDIFORD FL	Unknown	Kentucky	80.42	31.44	391
Air Natl Guard	NAS JOINT RESERVE BASE, NOLA	Unknown	Louisiana	45.68	27.01	591
Air Natl Guard	OTIS ANG BASE	Otis ANGB, Mashpee	Massachusetts	103.97	70.66	680
Air Natl Guard	BARNES MAP (ANG)	Unknown	Massachusetts	114.65	47.75	416
Air Natl Guard	MARTIN STATE AIRPORT	Middle River	Maryland	67.25	26.80	399
Air Natl Guard	BANGOR IAP	Unknown	Maine	92.42	49.30	533
Air Natl Guard	SELFRIDGE AIR NATIONAL GUARD BASE	Unknown	Michigan	104.19	271.29	2,604
Air Natl Guard	W K KELLOGG AIRPORT	Battle Creek	Michigan	128.91	52.11	404

Component	Installation Name	City	State / Country	Simple Intensity (BBTU/GSF) Goal Subject	Total Site Delivered Energy (BBTU) Goal Subject	Gross Square Footage ('000 Sqft) Goal Subject
Air Natl Guard	ALPENA CO REG APT	Alpena	Michigan	87.29	47.73	547
Air Natl Guard	DULUTH INTERNATIONAL AIRPORT	Unknown	Minnesota	121.77	61.64	506
Air Natl Guard	MINN-ST PAUL	Minneapolis	Minnesota	76.77	34.86	454
Air Natl Guard	ROSECRANS MAP/139AG	St. Joseph	Missouri	72.29	25.82	357
Air Natl Guard	JEFFERSON BARRACKS ANGS	Unknown	Missouri	55.14	10.73	195
Air Natl Guard	LAMBERT-ST LOUIS	Unknown	Missouri	80.85	34.15	422
Air Natl Guard	GPT BIL REG APT ANG	Gulfport	Mississippi	56.76	34.61	610
Air Natl Guard	JACKSON IAP, THOMPSON FIELD	Flowood	Mississippi	95.56	53.44	559
Air Natl Guard	KEY FIELD	Meridian	Mississippi	99.49	39.44	396
Air Natl Guard	GREAT FALLS IAP	Unknown	Montana	114.96	51.09	444
Air Natl Guard	CHARLOTTE/DOUGLAS INTERNATIONAL AIRPORT	Charlotte	North Carolina	74.23	39.40	531
Air Natl Guard	HECTOR IAP	Fargo	North Dakota	85.33	39.11	458
Air Natl Guard	LINCOLN MUNICIPAL AIRPORT	Unknown	Nebraska	99.29	34.33	346
Air Natl Guard	PEASE ANGB NEWHAMPSHIRE	Portsmouth	New Hampshire	140.41	72.48	516
Air Natl Guard	ATLANTIC CITY IAP	Unknown	New Jersey	109.82	49.90	454
Air Natl Guard	MCGUIRE AFB	McGuire AFB	New Jersey	226.70	96.24	425
Air Natl Guard	KIRTLAND	Kirtland AFB	New Mexico	77.75	24.74	318
Air Natl Guard	RENO TAHOE INT'L AIRPORT	Reno	Nevada	85.67	36.35	424

Component	Installation Name	City	State / Country	Simple Intensity (BBTU/GSF) Goal Subject	Total Site Delivered Energy (BBTU) Goal Subject	Gross Square Footage ('000 Sqft) Goal Subject
Air Natl Guard	FRANCIS S. GABRESKI AIRPORT(ANG)	Westhampton Beach	New York	42.98	14.54	338
Air Natl Guard	NIAGARA FALLS	Unknown	New York	95.04	28.67	302
Air Natl Guard	SCHENECTADY ANG MAP	Unknown	New York	104.27	41.67	400
Air Natl Guard	HANCOCK FIELD	Unknown	New York	83.84	42.50	507
Air Natl Guard	STEWART IAP	Unknown	New York	124.27	102.99	829
Air Natl Guard	MANSFIELD LAHM MUNICIPAL AIRPORT	Unknown	Ohio	115.49	33.83	293
Air Natl Guard	SPRINGFIELD BECKLEY	Springfield	Ohio	92.52	40.98	443
Air Natl Guard	TOLEDO/EXP APRT	Swanton	Ohio	71.11	23.99	337
Air Natl Guard	RICKENBACKER	Unknown	Ohio	83.52	45.66	547
Air Natl Guard	WILL ROGERS WORLD AIRPORT	Unknown	Oklahoma	78.19	29.02	371
Air Natl Guard	TULSA IAP	Tulsa	Oklahoma	107.04	39.45	369
Air Natl Guard	PORTLAND IAP OR	Unknown	Oregon	88.67	70.28	793
Air Natl Guard	KLAMATH FALLS AIRPORT-KINGSLEY FIELD (ANG)	Unknown	Oregon	76.17	38.09	500
Air Natl Guard	PITTSBURGH IAP (ANG)	Unknown	Pennsylvania	128.22	56.84	443
Air Natl Guard	WILLOW GROVE	Horsham	Pennsylvania	88.96	44.05	495
Air Natl Guard	HARRISBURG IAP ANG	Middletown	Pennsylvania	70.26	26.64	379
Air Natl Guard	LUIS MUNOZ MARIN IAP	Carolina	Puerto Rico	67.21	30.18	449
Air Natl Guard	QUONSET STATE AIRPORT	Unknown	Rhode Island	113.49	47.47	418

Component	Installation Name	City	State / Country	Simple Intensity (BBTU/GSF) Goal Subject	Total Site Delivered Energy (BBTU) Goal Subject	Gross Square Footage ('000 Sqft) Goal Subject
Air Natl Guard	MCENTIRE JOINT NATIONAL GUARD BASE	Unknown	South Carolina	94.64	39.72	420
Air Natl Guard	JOE FOSS FIELD	Unknown	South Dakota	83.84	34.87	416
Air Natl Guard	MCGHEE TYSON AIRPORT	Louisville	Tennessee	109.81	73.80	672
Air Natl Guard	MEMPHIS IAP	Unknown	Tennessee	80.50	47.86	595
Air Natl Guard	NASHVILLE IAP	Unknown	Tennessee	56.49	26.60	471
Air Natl Guard	CARSWELL AIR RESERVE STATION	Unknown	Texas	64.49	24.23	376
Air Natl Guard	ELLINGTON FIELD	Unknown	Texas	89.15	42.97	482
Air Natl Guard	SALT LAKE CITY IAP	Salt Lake City	Utah	109.82	51.61	470
Air Natl Guard	CAMP PENDLETON ANG	Virginia Beach	Virginia	52.29	7.75	148
Air Natl Guard	BURLINGTON INTERNATIONAL AIRPORT	South Burlington	Vermont	70.45	31.55	448
Air Natl Guard	FAIRCHILD AIR FORCE BASE	Unknown	Washington	51.43	25.04	487
Air Natl Guard	CAMP MURRAY AGS	Unknown	Washington	36.15	12.78	353
Air Natl Guard	TRUAX ANG BASE	Unknown	Wisconsin	77.13	34.67	449
Air Natl Guard	GEN MITCHELL IAP (ANGB)	Unknown	Wisconsin	108.38	36.35	335
Air Natl Guard	VOLK ANG BASE	Camp Douglas	Wisconsin	75.37	50.00	663
Air Natl Guard	YEAGER APRT	Unknown	West Virginia	99.69	29.55	296
Air Natl Guard	EWVRA-SHEPHERD FIELD	Unknown	West Virginia	124.26	78.18	629
Air Natl Guard	CHEYENNE REGIONAL APT	Unknown	Wyoming	109.32	43.07	394

Component	Installation Name	City	State / Country	Simple Intensity (BBTU/GSF) Goal Subject	Total Site Delivered Energy (BBTU) Goal Subject	Gross Square Footage ('000 Sqft) Goal Subject
Air Natl Guard	CAMP BLANDING	Unknown	Florida	40.43	4.65	115
Air Natl Guard	ANDREWS AIR FORCE BASE	Andrews AFB	Maryland	106.45	17.70	166
Air Natl Guard	CAMP PERRY ANG	Port Clinton	Ohio	58.51	6.77	116
Air Natl Guard	FORT INDIANTOWN GAP AGS	Unknown	Pennsylvania	53.01	16.24	306
Air Natl Guard	LACKLAND AIR FORCE BASE	Unknown	Texas	116.93	43.14	369
Army	US ARMY GARRISON GRAFENWOEHR	Grafenwohr	Germany	59.85	1,206.72	20,162
Army	HOLSTON ARMY AMMUNITION PLANT	Kingsport	Tennessee	1,259.94	2,046.14	1,624
Army	US ARMY GARRISON WIESBADEN	Wiesbaden	Germany	57.68	688.83	11,942
Army	US ARMY GARRISON KAISERSLAUTERN	Kaiserlautern	Germany	54.79	713.67	13,026
Army	US ARMY GARRISON BAUMHOLDER	Baumholder	Germany	65.23	528.10	8,096
Army	US ARMY GARRISON MANNHEIM	Mannheim	Germany	50.26	578.74	11,516
Army	US ARMY GARRISON HEIDELBERG	Heidelberg	Germany	50.80	578.77	11,394
Army	DETROIT ARSENAL	Harrison Township	Michigan	209.25	332.29	1,588
Army	US ARMY GARRISON ANSBACH	Ansbach	Germany	44.89	327.19	7,289
Army	US ARMY GARRISON STUTTGART	Stuttgart	Germany	69.20	602.23	8,703
Army	US ARMY GARRISON BAMBERG	Bamberg	Germany	55.20	299.17	5,420
Army	US ARMY GARRISON SCHWEINFURT	Schweinfurt	Germany	49.11	324.99	6,617
Army	US ARMY GARRISON HOHENFELS	Hohenfels	Germany	53.14	303.01	5,702
Army	INDIANA NATIONAL GUARD	Indianopolis	Indiana	87.21	409.02	4,690
Army	US ARMY GARRISON SCHINNEN	Schinnen	Netherlands	37.70	47.54	1,261
Army	SOUTH DAKOTA NATIONAL GUARD	Rapid City	South Dakota	43.86	75.70	1,726
Army	PENNSYLVANIA NATIONAL GUARD	Annville	Pennsylvania	60.60	436.23	7,198
Army	CONNECTICUT NATIONAL GUARD	Hartford	Connecticut	36.21	70.93	1,959
Army	MISSOURI NATIONAL GUARD	Jefferson City	Missouri	41.74	132.48	3,174
Army	WISCONSIN NATIONAL GUARD	Madison	Wisconsin	57.27	163.39	2,853
Army	ANNISTON ARMY DEPOT	Anniston	Alabama	111.26	1,050.77	9,444
Army	ALABAMA NATIONAL GUARD	Montgomery	Alabama	41.59	185.96	4,471
Army	REDSTONE ARSENAL	Huntsville	Alabama	141.67	1,980.63	13,981

Component	Installation Name	City	State / Country	Simple Intensity (BBTU/GSF) Goal Subject	Total Site Delivered Energy (BBTU) Goal Subject	Gross Square Footage ('000 Sqft) Goal Subject
Army	FORT RUCKER	Fort Rucker	Alabama	93.59	617.44	6,597
Army	81ST REGIONAL SUPPORT COMMAND	Fort Jackson	South Carolina	49.87	228.12	4,574
Army	ALASKA NATIONAL GUARD	Fort Richardson	Alaska	180.45	60.27	334
Army	FORT GREELY	Delta Junction	Alaska	158.32	228.94	1,446
Army	FORT RICHARDSON	Fort Richardson	Alaska	115.07	1,013.41	8,807
Army	FORT WAINWRIGHT	Fort Wainwright	Alaska	361.48	2,644.20	7,315
Army	FORT HUACHUCA	Fort Huachuca	Arizona	78.38	586.11	7,478
Army	ARIZONA NATIONAL GUARD	Phoenix	Arizona	43.62	67.57	1,549
Army	YUMA PROVING GROUND	Yuma	Arizona	89.14	149.22	1,674
Army	PINE BLUFF ARSENAL	White Hall	Arkansas	261.88	936.22	3,575
Army	ARKANSAS NATIONAL GUARD	Camp Robinson	Arkansas	47.04	287.89	6,120
Army	CALIFORNIA NATIONAL GUARD	Sacramento	California	25.69	203.17	7,910
Army	FORT HUNTER LIGGETT	Fort Hunter Liggett	California	33.00	69.52	2,107
Army	NATIONAL TRAINING CENTER AND FORT IRWIN	Fort Irwin	California	120.88	508.18	4,204
Army	PRESIDIO OF MONTEREY	Monterey	California	54.19	186.09	3,434
Army	63RD RRC - CALIFORNIA	Moffett Field	California	50.31	244.58	4,861
Army	COMBAT SUPPORT TRAINING CENTER AND CAMP PARKS	Dublin	California	48.82	51.94	1,064
Army	SIERRA ARMY DEPOT	Herlong Sierra Ord-D	California	31.84	162.04	5,090
Army	MILITARY OCEAN TERMINAL CONCORD	Concord	California	24.86	8.73	351
Army	FORT CARSON	Colorado Spgs	Colorado	116.18	1,359.21	11,699
Army	COLORADO NATIONAL GUARD	Englewood	Colorado	59.29	51.41	867
Army	PUEBLO CHEMICAL DEPOT	Pueblo	Colorado	-	-	3,394
Army	ROCKY MOUNTAIN ARSENAL	Commerce City	Colorado	-	-	339
Army	DELAWARE NATIONAL GUARD	Wilmington	Delaware	31.00	28.40	916
Army	WASHINGTON DC NATIONAL GUARD	Washington, DC	District of Columbia	77.10	55.05	714
Army	FORT LESLEY J MCNAIR	Washington, DC	District of Columbia	158.08	236.34	1,495
Army	FLORIDA NATIONAL GUARD	Saint Augustine	Florida	41.28	116.75	2,828
Army	US ARMY GARRISON MIAMI	Miami	Florida	138.37	30.99	224
Army	FORT BENNING	Fort Benning	Georgia	83.07	1,394.52	16,788

Component	Installation Name	City	State / Country	Simple Intensity (BBTU/GSF) Goal Subject	Total Site Delivered Energy (BBTU) Goal Subject	Gross Square Footage ('000 Sqft) Goal Subject
Army	FORT GORDON	Augusta	Georgia	120.64	990.78	8,213
Army	GEORGIA NATIONAL GUARD	Atlanta	Georgia	53.18	153.17	2,880
Army	FORT MCPHERSON	Atlanta	Georgia	77.60	553.32	7,130
Army	FORT STEWART	Fort Stewart	Georgia	96.47	1,235.53	12,808
Army	HAWAII NATIONAL GUARD	Honolulu	Hawaii	26.68	25.30	948
Army	SCHOFIELD BARRACKS	Wahiawa	Hawaii	64.46	859.29	13,330
Army	IDAHO NATIONAL GUARD	Boise	Idaho	53.26	101.40	1,904
Army	ILLINOIS NATIONAL GUARD	Camp Lincoln	Illinois	34.25	145.65	4,252
Army	ROCK ISLAND ARSENAL	Rock Island	Illinois	122.31	889.65	7,274
Army	IOWA NATIONAL GUARD	Johnston	Iowa	51.13	198.80	3,888
Army	IOWA ARMY AMMUNITION PLANT	Middletown	Iowa	161.96	624.54	3,856
Army	KANSAS NATIONAL GUARD	Topeka	Kansas	45.49	133.39	2,932
Army	FORT LEAVENWORTH	Fort Leavenworth	Kansas	110.32	471.41	4,273
Army	FORT RILEY	Fort Riley	Kansas	79.63	1,146.90	14,403
Army	BLUE GRASS ARMY DEPOT	Richmond	Kentucky	41.06	163.09	3,972
Army	KENTUCKY NATIONAL GUARD	Frankfort	Kentucky	51.69	122.10	2,362
Army	FORT CAMPBELL	Fort Campbell	Kentucky	112.53	1,821.75	16,189
Army	FORT KNOX	Fort Knox	Kentucky	73.21	901.93	12,319
Army	LOUISIANA NATIONAL GUARD	Johnson Barracks	Louisiana	34.63	129.00	3,725
Army	FORT POLK	Fort Polk	Louisiana	106.86	815.96	7,636
Army	MAINE NATIONAL GUARD	Camp Keyes	Maine	31.10	52.28	1,681
Army	ABERDEEN PROVING GROUND	Aberdeen Prov Grnd	Maryland	188.65	2,337.32	12,390
Army	MARYLAND NATIONAL GUARD	Baltimore	Maryland	30.88	71.34	2,310
Army	US ARMY ADELPHI LABORATORY CENTER	Hyattsville	Maryland	178.23	207.47	1,164
Army	FORT GEORGE G MEADE	Fort Meade	Maryland	101.54	468.31	4,612
Army	MASSACHUSETTS NATIONAL GUARD	Milford	Massachusetts	27.93	81.70	2,925
Army	DEVENS RESERVE FORCES TRAINING AREA	Devens	Massachusetts	86.03	99.19	1,153
Army	SOLDIER SYSTEMS CENTER	Natick	Massachusetts	144.31	140.99	977
Army	MICHIGAN NATIONAL GUARD	Lansing	Michigan	48.85	264.95	5,424
Army	MINNESOTA NATIONAL GUARD	Camp Ripley	Minnesota	42.61	184.23	4,324
Army	88TH REGIONAL SUPPORT COMMAND	Fort McCoy	Wisconsin	76.96	937.49	12,182

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Army	MISSISSIPPI NATIONAL GUARD	Jackson	Mississippi	43.89	300.00	6,835
Army	LAKE CITY ARMY AMMUNITION PLANT	Independence	Missouri	-	-	3,041
Army	FORT LEONARD WOOD	Fort Leonard Wood	Missouri	148.99	1,579.12	10,599
Army	MONTANA NATIONAL GUARD	Helena	Montana	45.65	75.68	1,658
Army	NEBRASKA NATIONAL GUARD	Lincoln	Nebraska	37.68	79.24	2,103
Army	NEVADA NATIONAL GUARD	Carson City	Nevada	48.10	37.71	784
Army	HAWTHORNE ARMY DEPOT	Hawthorne	Nevada	16.54	156.89	9,488
Army	NEW HAMPSHIRE NATIONAL GUARD	Concord	New Hampshire	31.43	32.31	1,028
Army	NEW JERSEY NATIONAL GUARD	Lawrenceville	New Jersey	40.39	101.86	2,522
Army	FORT MONMOUTH	Red Bank	New Jersey	73.77	363.12	4,922
Army	PICATINNY ARSENAL	Dover	New Jersey	181.73	544.27	2,995
Army	NEW MEXICO NATIONAL GUARD	Santa Fe	New Mexico	33.38	45.87	1,374
Army	WHITE SANDS MISSLE RANGE	White Sands	New Mexico	104.03	460.33	4,425
Army	NEW YORK NATIONAL GUARD	Latham	New York	31.61	175.57	5,555
Army	FORT DRUM	Fort Drum	New York	95.60	993.06	10,388
Army	FORT HAMILTON	New York City	New York	118.43	73.55	621
Army	WATERVLIET ARSENAL	Watervliet	New York	169.48	346.41	2,044
Army	WEST POINT MILITARY RESERVATION	West Point	New York	121.76	969.18	7,960
Army	NORTH CAROLINA NATIONAL GUARD	Raleigh	North Carolina	37.40	103.66	2,772
Army	FORT BRAGG	Fort Bragg	North Carolina	121.06	3,177.94	26,252
Army	MILITARY OCEAN TERMINAL SUNNY POINT	Southport	North Carolina	52.90	17.25	326
Army	NORTH DAKOTA NATIONAL GUARD	Bismark	North Dakota	64.75	106.46	1,644
Army	OHIO NATIONAL GUARD	Columbus	Ohio	26.01	99.27	3,817
Army	JOINT SYSTEM MANUFACTURING CENTER LIMA	Lima	Ohio	347.05	557.37	1,606
Army	OKLAHOMA NATIONAL GUARD	Oklahoma City	Oklahoma	39.27	117.07	2,981
Army	MCALESTER ARMY AMMUNITION PLANT	Mcalester	Oklahoma	44.34	457.59	10,320
Army	FORT SILL	Fort Sill	Oklahoma	84.46	1,170.08	13,853
Army	OREGON NATIONAL GUARD	Salem	Oregon	34.19	96.42	2,820
Army	UMATILLA CHEMICAL DEPOT	Hermiston	Oregon	-	-	1,719
Army	CARLISLE BARRACKS	Carlisle	Pennsylvania	128.53	143.70	1,118

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Army	LETTERKENNY ARMY DEPOT	Chambersburg	Pennsylvania	92.40	471.45	5,102
Army	99TH REGIONAL SUPPORT COMMAND	Joint Base MDL	New Jersey	139.98	977.45	6,983
Army	SCRANTON ARMY AMMUNITION PLANT	Scranton	Pennsylvania	1,322.17	511.68	387
Army	TOBYHANNA ARMY DEPOT	Unknown	Pennsylvania	120.78	553.89	4,586
Army	RHODE ISLAND NATIONAL GUARD	Cranston	Rhode Island	42.68	64.02	1,500
Army	SOUTH CAROLINA NATIONAL GUARD	Columbia	South Carolina	39.42	126.81	3,217
Army	FORT JACKSON	Columbia	South Carolina	120.97	1,166.00	9,639
Army	TENNESSEE NATIONAL GUARD	Nashville	Tennessee	30.79	132.82	4,314
Army	MILAN ARMY AMMUNITION PLANT	Milan	Tennessee	46.57	197.40	4,239
Army	TEXAS NATIONAL GUARD	Camp Mabry	Texas	42.41	198.41	4,678
Army	FORT BLISS	El Paso	Texas	91.11	1,626.28	17,849
Army	CORPUS CHRISTI ARMY DEPOT	Corpus Christi	Texas	158.70	357.55	2,253
Army	FORT HOOD	Killeen	Texas	124.97	2,637.06	21,101
Army	FORT SAM HOUSTON	San Antonio	Texas	101.90	1,066.39	10,465
Army	LONE STAR ARMY AMMUNITION PLANT	Texarkana	Texas	-	-	2,701
Army	RED RIVER ARMY DEPOT	Texarkana	Texas	104.35	774.35	7,421
Army	UTAH NATIONAL GUARD	Draper	Utah	36.82	84.84	2,304
Army	DESERET CHEMICAL DEPOT	Stockton	Utah	388.87	547.53	1,408
Army	DUGWAY PROVING GROUND	Dugway	Utah	104.34	307.06	2,943
Army	TOOELE ARMY DEPOT	Tooele	Utah	34.73	90.28	2,599
Army	VERMONT NATIONAL GUARD	Colchester	Vermont	36.90	51.88	1,406
Army	VIRGINIA NATIONAL GUARD	Fort Pickett	Virginia	58.94	215.79	3,661
Army	FORT BELVOIR	Fort Belvoir	Virginia	106.40	996.86	9,369
Army	FORT EUSTIS	Fort Eustis	Virginia	113.48	643.57	5,671
Army	FORT A P HILL	Bowling Green	Virginia	75.10	84.18	1,121
Army	FORT LEE	Fort Lee	Virginia	105.03	816.31	7,772
Army	FORT MONROE	Fort Monroe	Virginia	77.40	156.03	2,016
Army	FORT MYER	Fort Myer	Virginia	141.68	369.07	2,605
Army	RADFORD ARMY AMMUNITION PLANT	Radford	Virginia	922.02	3,091.55	3,353
Army	WASHINGTON NATIONAL GUARD	Camp Murray	Washington	36.99	68.10	1,841
Army	FORT LEWIS	Tacoma	Washington	97.08	1,866.85	19,229

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Army	WEST VIRGINIA NATIONAL GUARD	Charleston	West Virginia	51.19	140.61	2,747
Army	FORT MCCOY	Sparta	Wisconsin	74.75	496.86	6,647
Army	WYOMING NATIONAL GUARD	Chyenne	Wyoming	103.27	110.81	1,073
Army	US ARMY GARRISON BENELUX	Brussels	Belgium	80.26	151.29	1,885
Army	GUAM NATIONAL GUARD	Barrigada	Guam	60.52	10.41	172
Army	US ARMY GARRISON LIVORNO	Livorno	Italy	43.76	117.32	2,681
Army	US ARMY GARRISON VICENZA	Vicenza	Italy	91.72	341.31	3,721
Army	CAMP ZAMA	Sagamihara	Japan	55.51	711.65	12,821
Army	CAMP HENRY	Taegu	South Korea	62.94	516.53	8,206
Army	CAMP RED CLOUD	Uijong Bu	South Korea	111.07	1,109.56	9,990
Army	CAMP HUMPHREYS	Camp Humphreys	South Korea	114.73	682.19	5,946
Army	YONGSAN GARRISON	Seoul	South Korea	137.43	1,144.76	8,330
Army	US ARMY KWAJALEIN ATOLL	Majuro Atoll	Marshall Islands	283.45	902.51	3,184
Army	PUERTO RICO NATIONAL GUARD	San Juan	Puerto Rico	30.94	45.54	1,472
Army	FORT BUCHANAN	Fort Buchanan, Catano	Puerto Rico	65.83	147.47	2,240
Army	US VIRGIN ISLANDS NATIONAL GUARD	Christiansted	Virgin Islands	31.26	6.38	204
Dept Navy	NAVBASE SAN DIEGO CA	SAN DIEGO	CA	39.14	276.19	7,057
Dept Navy	NAVBASE CORONADO SAN DIEGO CA	SAN DIEGO	CA	44.23	453.31	10,248
Dept Navy	NSY NORFOLK VA	NORFOLK	VA	119.80	906.66	7,568
Dept Navy	NAVBASE POINT LOMA	SAN DIEGO	CA	60.79	170.93	2,812
Dept Navy	MARCORCRUITDEP SAN DIEGO CA	SAN DIEGO	CA	111.17	283.15	2,547
Dept Navy	NAVSTA GREAT LAKES IL	GREAT LAKES	IL	113.71	1,010.18	8,884
Dept Navy	NAVAVNDEPOT NORTH ISLAND CA	SAN DIEGO	CA	119.90	291.11	2,428
Dept Navy	NSWCCD SSES PHILADELPHIA PA	PHILADELPHIA	PA	96.95	143.87	1,484
Dept Navy	NAVDENCEN SOUTHWEST SAN DIEGO CA	SAN DIEGO	CA	45.04	11.98	266
Dept Navy	NAVFAC SOUTHWEST	SAN DIEGO	CA	18.20	18.36	1,009
Dept Navy	MCAS CHERRY PT NC	CHERRY POINT	NC	119.60	720.70	6,026
Dept Navy	MARCORCRUITDEP PARRIS ISLAND SC	PARRIS ISLAND	SC	155.49	595.35	3,829
Dept Navy	CG MCCDC QUANTICO VA	QUANTICO	VA	113.76	793.40	6,974
Dept Navy	MCB HAWAII, KANEOHE BAY	KANEOHE BAY	HI	55.62	341.87	6,147
Dept Navy	CG MCB CAMP PENDLETON CA	CAMP PENDLETON	CA	59.16	983.56	16,625

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Dept Navy	MCAS BEAUFORT SC	BEAUFORT	SC	73.26	187.76	2,563
Dept Navy	MCLB BARSTOW CA	BARSTOW	CA	73.69	262.11	3,557
Dept Navy	MCAS IWAKUNI JA	IWAKUNI	JAPAN	108.05	590.81	5,468
Dept Navy	MCAS YUMA AZ	YUMA	AZ	73.14	196.98	2,693
Dept Navy	MCMWTC BRIDGEPORT CA	BRIDGEPORT	CA	114.13	37.21	326
Dept Navy	CG MCB CAMP LEJEUNE NC	CAMP LEJEUNE	NC	137.41	2,838.25	20,656
Dept Navy	CG MCLB ALBANY GA	ALBANY	GA	61.38	406.54	6,623
Dept Navy	FIRST MCD GARDEN CITY LI NY	LONG ISLAND	NY	430.48	71.46	166
Dept Navy	MARFORRES NEW ORLEANS	NEW ORLEANS	LA	154.95	77.94	503
Dept Navy	MARBKS WASHINGTON DC	WASHINGTON	DC	80.25	50.00	623
Dept Navy	MARCORSUPACT KANSAS CITY MO	KANSAS CITY	MO	98.80	36.56	370
Dept Navy	MCB CAMP ELMORE NORFOLK VA	NORFOLK	VA	77.29	25.66	332
Dept Navy	CG MCAGCC TWENTYNINE PALMS CA	TWENTYNINE PALMS	CA	145.51	874.39	6,009
Dept Navy	CG MCB CAMP BUTLER JA	CAMP BUTLER	JAPAN	63.57	1,175.63	18,494
Dept Navy	USMC BLCMD	JACKSONVILLE	FL	41.51	37.98	915
Dept Navy	MCAS MIRAMAR	SAN DIEGO	CA	49.59	273.04	5,506
Dept Navy	NSY PORTSMOUTH NH	PORTSMOUTH	NH	52.70	130.32	2,473
Dept Navy	LANTORDCOM YORKTOWN VA	YORKTOWN	VA	35.04	205.00	5,850
Dept Navy	NSB NEW LONDON CT	GROTON	CT	417.74	1,261.99	3,021
Dept Navy	NAS JRB WILLOW GROVE PA	WILLOW GROVE	PA	48.28	57.11	1,183
Dept Navy	USNA ANNAPOLIS MD	ANNAPOLIS	MD	122.27	733.53	5,999
Dept Navy	NAVMEDCLINIC ANNAPOLIS MD	ANNAPOLIS	MD	100.83	10.29	102
Dept Navy	NAVSURFWARCEN CARDEROCKDIV BETHESDA MD	WEST BETHESDA	MD	98.36	186.88	1,900
Dept Navy	COMNAVDIST WASHINGTON DC	WASHINGTON NAVY YARD	DC	105.39	584.68	5,548
Dept Navy	NRL WASHINGTON DC	WASHINGTON	DC	280.08	1,012.77	3,616
Dept Navy	NSWC DIV INDIAN HEAD MD	INDIAN HEAD	MD	490.99	1,427.29	2,907
Dept Navy	NSWC DIV DAHLGREN VA	DAHLGREN	VA	201.40	519.01	2,577
Dept Navy	NAVFAC MID-ATLANTIC	NORFOLK	VA	-	-	-
Dept Navy	LANTORDCOM DET CHARLESTON SC	GOOSE CREEK	SC	93.38	418.88	4,486

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Dept Navy	NAVHOSP PENSACOLA FL	PENSACOLA	FL	99.77	51.88	520
Dept Navy	NAS PENSACOLA FL	PENSACOLA	FL	111.80	1,095.07	9,795
Dept Navy	NAVSUPPACT NEW ORLEANS LA	NEW ORLEANS	LA	70.57	177.83	2,520
Dept Navy	NAS JRB NEW ORLEANS LA	NEW ORLEANS	LA	80.62	172.28	2,137
Dept Navy	NAS JACKSONVILLE FL	JACKSONVILLE	FL	69.95	389.34	5,566
Dept Navy	NAVHOSP GREAT LAKES IL	GREAT LAKES	IL	157.41	214.87	1,365
Dept Navy	NAS KEY WEST FL	KEY WEST	FL	62.01	225.28	3,633
Dept Navy	NAS CORPUS CHRISTI TX	CORPUS CHRISTI	TX	67.99	199.14	2,929
Dept Navy	NAVHOSP JACKSONVILLE FL	JACKSONVILLE	FL	184.47	130.79	709
Dept Navy	NAVUSEAWARCENDIV KEYPORT WA	KEYPORT	WA	125.55	207.54	1,653
Dept Navy	NAVMEDCLINIC KEY WEST FL	KEY WEST	FL	125.54	8.41	67
Dept Navy	NAVHOSP CORPUS CHRISTI TX	CORPUS CHRISTI	TX	248.50	60.14	242
Dept Navy	NSY PEARL HARBOR HI	PEARL HARBOR	HI	38.11	128.24	3,365
Dept Navy	NAVICP PHILADELPHIA PA	PHILADELPHIA	PA	102.95	229.89	2,233
Dept Navy	NAWC AD PATUXENT RIVER MD	PATUXENT RIVER	MD	125.04	1,150.16	9,198
Dept Navy	NAS WHIDBEY ISLAND WA	OAK HARBOR	WA	115.92	434.94	3,752
Dept Navy	NAVSUPPACT MID SOUTH MILLINGTON TN	MILLINGTON	TN	94.52	240.83	2,548
Dept Navy	AFRADBIORSCHINST BETHESDA MD	BETHESDA	MD	191.65	33.54	175
Dept Navy	NAVEODTECHDIV INDIAN HEAD MD	INDIAN HEAD	MD	137.63	44.59	324
Dept Navy	PACMISRANFAC HAWAREA BARKING SANDS HI	KEKAHA	HI	115.28	80.12	695
Dept Navy	NAVSECGRUACT SUGAR GROVE WV	SUGAR GROVE	WV	56.30	14.81	263
Dept Navy	NAVMAG INDIAN ISLAND WA	PORT TOWNSEND	WA	39.12	11.62	297
Dept Navy	NAVICP MECHANICSBURG PA	MECHANICSBURG	PA	44.07	386.83	8,777
Dept Navy	NAVSTA BREMERTON	BREMERTON	WA	83.46	252.96	3,031
Dept Navy	NAVSUPACT PORTSMOUTH	PORTSMOUTH	NH	542.80	897.25	1,653
Dept Navy	COMFLEACT CHINHAE KS	CHINHAE	SOUTH KOREA	91.87	31.97	348
Dept Navy	NAVDENFACBR LEMOORE CA	LEMOORE	CA	106.44	1.70	16
Dept Navy	NAVHOSP TWENTYNINE PALMS CA	TWENTYNINE PALMS	CA	152.91	31.81	208
Dept Navy	NAVRADTRANFAC SADDLEBUNCH KEYS	KEY WEST	FL	145.70	1.46	10
Dept Navy	NSWC PT HUENEME DET SAN DIEGO	SAN DIEGO	CA	120.37	5.90	49

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Dept Navy	NAVFAC MARIANAS	FPO	GUAM	270.03	50.77	188
Dept Navy	NSB KINGS BAY GA	KINGS BAY	GA	119.93	285.32	2,379
Dept Navy	NAVJNTSERVACT NS TOKYO JA	TOKYO	JAPAN	266.09	54.28	204
Dept Navy	TRIREFFAC KINGS BAY GA	KINGS BAY	GA	97.07	131.73	1,357
Dept Navy	NAVSHIPYD PUGET SOUND WA	BREMERTON	WA	295.31	1,445.82	4,896
Dept Navy	NAVCONBRIG CHARLESTON SC	CHARLESTON	SC	132.83	27.10	204
Dept Navy	NSA NORFOLK VA	NORFOLK	VA	149.46	525.51	3,516
Dept Navy	NAF EL CENTRO CA	EL CENTRO	CA	57.61	63.72	1,106
Dept Navy	NAS BRUNSWICK ME	BRUNSWICK	ME	74.68	135.92	1,820
Dept Navy	NAS OCEANA VA	VIRGINIA BEACH	VA	110.64	801.79	7,247
Dept Navy	NAVSTA MAYPORT FL	MAYPORT	FL	96.82	283.01	2,923
Dept Navy	NAS KINGSVILLE TX	KINGSVILLE	TX	92.65	106.92	1,154
Dept Navy	LANTORDCOM DET EARLE COLTS NECK NJ	COLTS NECK	NJ	145.89	180.33	1,236
Dept Navy	NAS FALLON NV	FALLON	NV	74.14	177.72	2,397
Dept Navy	NAS WHITING FIELD MILTON FL	MILTON	FL	102.78	130.12	1,266
Dept Navy	NAVSTA GUANTANAMO BAY CU	GUANTANAMO BAY	CUBA	227.57	1,440.27	6,329
Dept Navy	NAVAIRWARCENWPNDIV CHINA LAKE CA	CHINA LAKE	CA	127.21	555.91	4,370
Dept Navy	NAVWPNSTA SEAL BEACH CA	SEAL BEACH	CA	32.63	55.63	1,705
Dept Navy	NAVAIRWARCEN TRASYSDIV ORLANDO FL	ORLANDO	FL	86.56	26.23	303
Dept Navy	NAVSURFWARCEN COASTSYSTA PANAMA CITY FL	PANAMA CITY BEACH	FL	97.62	149.07	1,527
Dept Navy	NSWC DIV CRANE IN	CRANE	IN	141.77	833.07	5,876
Dept Navy	NAB LITTLE CREEK VA	NORFOLK	VA	144.22	649.73	4,505
Dept Navy	NAVHOSP GUANTANAMO BAY CU	GUANTANAMO BAY	CUBA	306.82	38.66	126
Dept Navy	COMFLEACT YOKOSUKA JA	YOKOSUKA	JAPAN	39.53	204.41	5,171
Dept Navy	NAVAMBCARECEN GROTON CT	GROTON	CT	207.00	33.95	164
Dept Navy	NAVMARIANASUPPACT GU	GUAM	GUAM	54.06	455.88	8,433
Dept Navy	NSWC DET WHITE SANDS NM	WHITE SANDS MISSILE	NM	69.71	13.80	198
Dept Navy	NAVSURFWARCEN DET BAYVIEW ID	BAYVIEW	ID	249.10	16.94	68
Dept Navy	NAVPGSCOL MONTEREY CA	MONTEREY	CA	91.60	164.79	1,799
Dept Navy	NAVOBSY WASHINGTON DC	WASHINGTON	DC	228.27	30.13	132

Component	Installation Name	City	State / Country	Simple Intensity (BBTU/GSF) Goal Subject	Total Site Delivered Energy (BBTU) Goal Subject	Gross Square Footage ('000 Sqft) Goal Subject
Dept Navy	BRDENCLINIC GUAM	GUAM	GUAM	96.92	1.16	12
Dept Navy	NAF ATSUGI JA	ATSUGI	JAPAN	129.74	571.64	4,406
Dept Navy	NAVSUPPACT NAPLES IT	NAPLES	ITALY	79.57	405.19	5,092
Dept Navy	CBC GULFPORT MS	GULFPORT	MS	43.26	197.59	4,567
Dept Navy	FISC YOKOSUKA JA	YOKOSUKA	JAPAN	40.19	12.38	308
Dept Navy	NAVSTA NEWPORT RI	NEWPORT	RI	122.48	498.00	4,066
Dept Navy	NAVSTA NORFOLK VA	NORFOLK	VA	102.94	1,618.61	15,724
Dept Navy	NAVSURFWARCEN DET DANIA FL	DANIA	FL	81.38	1.71	21
Dept Navy	COMFLEACT SASEBO JA	SASEBO	JAPAN	84.17	337.94	4,015
Dept Navy	NAVSCSCOL ATHENS GA	ATHENS	GA	98.74	44.93	455
Dept Navy	NAVFAC HAWAII	PEARL HARBOR	HI	23.62	17.88	757
Dept Navy	NAVSHIPREPFAC YOKOSUKA JA	YOKOSUKA	JAPAN	45.33	57.66	1,272
Dept Navy	NAVSTA PEARL HARBOR HI	PEARL HARBOR	HI	48.78	528.96	10,843
Dept Navy	NAVSTA ROTA SP	ROTA	SPAIN	69.05	242.56	3,513
Dept Navy	NAS SIGONELLA IT	SIGONELLA	ITALY	60.64	307.85	5,077
Dept Navy	NAVSUPPACT BAHHRAIN	MANAMA	BAHHRAIN	101.64	234.37	2,306
Dept Navy	NAS LEMOORE CA	LEMOORE	CA	64.52	408.68	6,334
Dept Navy	NAS MERIDIAN MS	MERIDIAN	MS	116.06	186.17	1,604
Dept Navy	NAVSURFWARCENDIV PORT HUENEME CA	PORT HUENEME	CA	37.63	26.57	706
Dept Navy	NAVCOMTELSTA JACKSONVILLE DET KEY WEST FL	KEY WEST	FL	114.45	1.26	11
Dept Navy	NAVUNSEAWARCEN DET AUTEC ANDROS ISLAND BAHAMAS	ANDROS ISLAND	AA	272.55	204.69	751
Dept Navy	NSWC DIV CORONA CA	CORONA	CA	128.47	53.06	413
Dept Navy	NAVFAC MIDWEST	GREAT LAKES	IL	2,111.47	785.47	372
Dept Navy	NAVFAC SOUTHEAST PENSACOLA DET	PENSACOLA	FL	445.13	129.53	291
Dept Navy	NAVFAC FAR EAST	YOKOSUKA	JAPAN	402.28	2,509.82	6,239
Dept Navy	NAVAVNDEPOT JACKSONVILLE FL	JACKSONVILLE	FL	202.05	514.83	2,548
Dept Navy	NAVAVNDEPOT CHERRY PT NC	CHERRY POINT	NC	317.00	603.25	1,903
Dept Navy	DOD SCHOOLS GUANTANAMO BAY	GUANTANAMO BAY	CUBA	283.54	31.47	111
Dept Navy	SPAWARSYSCEN SAN DIEGO CA	SAN DIEGO	CA	65.50	204.36	3,120

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Dept Navy	NAVHOSP LEMOORE CA	LEMOORE	CA	186.49	42.71	229
Dept Navy	NAVHOSP NAPLES IT	NAPLES	ITALY	133.61	43.96	329
Dept Navy	NAVHOSP OAK HARBOR WA	OAK HARBOR	WA	198.99	23.68	119
Dept Navy	NAVMEDCLINIC PATUXENT RIVER MD	PATUXENT RIVER	MD	85.21	5.62	66
Dept Navy	NAVHOSP ROTA SP	ROTA	SPAN	499.39	65.92	132
Dept Navy	NAVUNSEAWARCENDIV NEWPORT RI	NEWPORT	RI	101.92	190.07	1,865
Dept Navy	NAVSUPPACT SOUDA BAY GR	SOUDA BAY	GREECE	71.49	33.39	467
Dept Navy	NAVREGCONTCEN SINGAPORE	SINGAPORE	SINGAPORE	45.48	28.06	617
Dept Navy	NAVAMBCARECEN NEWPORT RI	NEWPORT	RI	37.80	31.83	842
Dept Navy	NAVHOSP CAMP PENDLETON CA	CAMP PENDLETON	CA	323.13	242.35	750
Dept Navy	NAVHOSP YOKOSUKA JA	YOKOSUKA	JAPAN	51.23	18.14	354
Dept Navy	NOSC MIDLANT WASHINGTON DC	NORFOLK	VA	111.57	79.88	716
Dept Navy	NSU SARATOGA SPRINGS NY	SARATOGA SPRINGS	NY	43.22	9.29	215
Dept Navy	NOSC NORTHWEST EVERETT WA	EVERETT	WA	104.46	33.95	325
Dept Navy	NOSC MIDWEST	GREAT LAKES	IL	20.55	29.85	1,453
Dept Navy	NAVAIRENGCEN LAKEHURST NJ	LAKEHURST	NJ	116.22	319.36	2,748
Dept Navy	UNISERUOFHEASCN BETHESDA MD	BETHESDA	MD	122.81	162.35	1,322
Dept Navy	NOSC MIDSOUTH	MILLINGTON	TN	57.79	23.00	398
Dept Navy	NOSC SOUTHWEST SAN DIEGO CA	SAN DIEGO	CA	36.54	17.17	470
Dept Navy	NOSC NE NEWPORT RI	NEWPORT	RI	68.28	30.80	451
Dept Navy	SUBASE BANGOR WA	SILVERDALE	WA	152.63	538.01	3,525
Dept Navy	NAVHOSP OKINAWA JA	OKINAWA	JAPAN	108.02	67.73	627
Dept Navy	NAVSUPPFAC DIEGO GARCIA	DIEGO GARCIA	BRITISH INDIAN OCEAN TERRITORY	268.64	699.82	2,605
Dept Navy	TRITRAFAC KINGS BAY GA	KINGS BAY	GA	120.48	71.20	591
Dept Navy	AEGIS TRAREDCEN DAHLGREN VA	DAHLGREN	VA	278.27	49.81	179
Dept Navy	SWFLANT KINGS BAY GA	KINGS BAY	GA	249.94	246.94	988
Dept Navy	NOPF WHIDBEY ISLAND	OAK HARBOR	WA	137.63	12.66	92
Dept Navy	NAVFAC WASHINGTON DC	WASHINGTON	DC	29.41	8.41	286
Dept Navy	NAVSTA EVERETT WA	EVERETT	WA	102.40	145.92	1,425
Dept Navy	NAVBASE VENTURA COUNTY	PORT HEUNEME	CA	38.81	447.39	11,528

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Dept Navy	NUWC NEWPORT NE DETS	NEWPORT	RI	42.34	2.63	62
Dept Navy	NAVRADSTA T JIM CREEK OSO WA	OSO	WA	77.47	7.36	95
Dept Navy	NAS JRB FORT WORTH TX	FORT WORTH	TX	78.80	325.92	4,136
Dept Navy	WV ABL MINERAL CO	KEYSER	WV	569.80	643.30	1,129
DCMA	----	----	----	108.36	8.67	80
DCMA	----	----	----	150.90	11.85	79
DeCA	YOKOTA AB	Yokota AFB	Japan	252.70	20.58	81
DeCA	FORT WAINWRIGHT	Fort Wainwright	Alaska	80.77	8.44	104
DeCA	CAMP ZAMA	Sagamihara	Japan	40.34	11.39	282
DeCA	RAMSTEIN AIR BASE	Ramstein	Germany	99.94	7.29	73
DeCA	NAVSUBASE NEW LONDON CT	Groton	Connecticut	284.21	12.95	46
DeCA	NAVAL STATION NEWPORT RI	Newport	Rhode Island	301.96	9.71	32
DeCA	MISAWA AIR BASE	Misawa AFB	Japan	247.21	20.39	82
DeCA	US ARMY GARRISON GRAFENWOEHR	Grafenwohr	Germany	147.03	8.12	55
DeCA	RAMSTEIN AIR BASE	Ramstein	Germany	85.98	4.85	56
DeCA	RAMSTEIN AIR BASE	Ramstein	Germany	163.97	9.60	59
DeCA	RAMSTEIN AIR BASE	Ramstein	Germany	114.69	6.00	52
DeCA	US ARMY GARRISON HEIDELBERG	Heidelberg	Germany	195.62	11.37	58
DeCA	EIELSON	Unknown	Alaska	76.30	3.20	42
DeCA	NSY PORTSMOUTH	Kittery	Maine	228.33	6.45	28
DeCA	SPANGDAHLEM	Spangdahlem AB	Germany	122.35	7.76	63
DeCA	MALMSTROM	Malmstrom AFB	Montana	150.26	10.25	68
DeCA	US ARMY GARRISON BAMBERG	Bamberg	Germany	112.80	5.28	47
DeCA	US ARMY GARRISON ANSBACH	Ansbach	Germany	125.08	5.42	43
DeCA	US ARMY GARRISON STUTTGART	Stuttgart	Germany	83.86	5.39	64
DeCA	US ARMY GARRISON HOHENFELS	Hohenfels	Germany	155.55	5.94	38
DeCA	US ARMY GARRISON GRAFENWOEHR	Grafenwohr	Germany	127.61	6.62	52
DeCA	CAMP ZAMA	Sagamihara	Japan	87.71	5.89	67
DeCA	COMFLEACT YOKOSUKA JA	Yokosuka	Japan	174.13	14.97	86
DeCA	US ARMY GARRISON SCHWEINFURT	Schweinfurt	Germany	173.33	8.81	51
DeCA	RAMSTEIN AIR BASE	Ramstein	Germany	56.26	2.28	41

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DeCA	US ARMY GARRISON ANSBACH	Ansbach	Germany	67.89	2.56	38
DeCA	US ARMY GARRISON STUTTGART	Stuttgart	Germany	129.89	2.36	18
DeCA	US ARMY GARRISON MANNHEIM	Mannheim	Germany	142.09	9.11	64
DeCA	US ARMY GARRISON BAUMHOLDER	Baumholder	Germany	177.86	5.67	32
DeCA	US ARMY GARRISON GRAFENWOEHR	Grafenwohr	Germany	93.36	1.27	14
DeCA	MCAS IWAKUNI JA	Iwakuni	Japan	182.05	5.89	32
DeCA	COMFLEACT SASEBO JA	Sasebo	Japan	197.75	4.75	24
DeCA	NAF ATSUGI JA	Atsugi	Japan	164.90	5.29	32
DeCA	CAMP ZAMA	Sagamihara	Japan	130.03	1.68	13
DeCA	FORT GREELY	Delta Junction	Alaska	142.13	3.51	25
DeCA	US ARMY GARRISON STUTTGART	Stuttgart	Germany	236.01	1.25	5
DeCA	COMFLEACT SASEBO JA	Sasebo	Japan	131.64	2.60	20
DeCA	ABERDEEN PROVING GROUND	Aberdeen Prov Grnd	Maryland	181.39	11.29	62
DeCA	MCLB ALBANY GA	Albany	Georgia	177.43	6.51	37
DeCA	ALTUS AIR FORCE BASE	Unknown	Oklahoma	143.07	8.27	58
DeCA	ELMENDORF AFB	Unknown	Alaska	176.21	18.50	105
DeCA	ANDERSEN AF BASE	Yigo	Guam	139.51	14.25	102
DeCA	ANDREWS AIR FORCE BASE	Andrews AFB	Maryland	157.97	17.92	113
DeCA	NAVAL SUPPORT ACTIVITY WASH	Washington, DC	District of Columbia	204.38	5.27	26
DeCA	PICATINNY ARSENAL	Dover	New Jersey	185.32	4.08	22
DeCA	ARNOLD	Unknown	Tennessee	205.23	4.76	23
DeCA	NAVAL SUPPORT ACTIVITY ATHENS	Athens	Georgia	73.37	1.05	14
DeCA	AVIANO AIR BASE	Aviano AB	Italy	172.43	11.11	64
DeCA	BANGOR IAP	Unknown	Maine	177.28	5.14	29
DeCA	NAVAL BASE KITSAP BREMERTON WA	Bangor	Washington	154.62	9.46	61
DeCA	NAVSTA PEARL HARBOR HI	Pearl Harbor	Hawaii	59.15	1.68	28
DeCA	BARKSDALE AIR FORCE BASE	Barksdale AFB	Louisiana	76.56	7.95	104
DeCA	MCLB BARSTOW CA	Barstow	California	213.25	4.70	22
DeCA	BEALE AF BASE	Beale AFB	California	125.01	9.41	75
DeCA	BOLLING AIR FORCE BASE	Unknown	District of Columbia	156.61	11.25	72
DeCA	NAVAL BASE KITSAP BREMERTON WA	Bangor	Washington	128.26	6.10	48

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DeCA	NAS BRUNSWICK ME	Brunswick	Maine	162.21	5.75	35
DeCA	BUCKLEY AFB	Aurora	Colorado	171.80	13.30	77
DeCA	CARLISLE BARRACKS	Carlisle	Pennsylvania	191.40	4.42	23
DeCA	CAMP HENRY	Taegu	South Korea	225.47	1.83	8
DeCA	CAMP CASEY	Camp Casey	South Korea	260.53	3.29	13
DeCA	MCB CAMP S D BUTLER OKINAWA JA	Zukeran	Japan	214.29	6.75	31
DeCA	MCB CAMP S D BUTLER OKINAWA JA	Zukeran	Japan	182.36	10.75	59
DeCA	CAMP HUMPHREYS	Camp Humphreys	South Korea	269.65	5.17	19
DeCA	MCB CAMP S D BUTLER OKINAWA JA	Zukeran	Japan	223.35	6.98	31
DeCA	CAMP ZAMA	Sagamihara	Japan	315.59	0.58	2
DeCA	MCB CAMP LEJEUNE NC	Camp Lejeune	North Carolina	169.65	12.83	76
DeCA	FORT BENNING	Unknown	Georgia	146.41	0.42	3
DeCA	MCB CAMP PENDLETON CA	Camp Pendleton	California	121.57	13.78	113
DeCA	CAMP RED CLOUD	Uijong Bu	South Korea	73.36	0.80	11
DeCA	CAMP RED CLOUD	Uijong Bu	South Korea	123.15	1.28	10
DeCA	CANNON AIR FORCE BASE	Cannon AFB	New Mexico	117.86	6.87	58
DeCA	CARLISLE BARRACKS	Carlisle	Pennsylvania	110.74	6.63	60
DeCA	CHARLESTON AFB	Unknown	South Carolina	198.57	17.15	86
DeCA	NAVAL WEAPONS STATION CHASN	Goose Creek	South Carolina	178.41	11.37	64
DeCA	MCAS CHERRY POINT NC	Cherry Point	North Carolina	146.62	8.69	59
DeCA	US ARMY GARRISON BENELUX	Brussels	Belgium	171.52	8.28	48
DeCA	NAWS CHINA LAKE	China Lake	California	168.34	4.07	24
DeCA	FLEET ACTIVITIES CHINHAE KS	Chinhae	South Korea	127.52	1.44	11
DeCA	COLUMBUS	Unknown	Mississippi	61.55	3.01	49
DeCA	NAS CORPUS CHRISTI TX	Corpus Christi	Texas	194.24	8.98	46
DeCA	NAVAL SUPPORT ACTIVITY CRANE	Crane	Indiana	141.71	1.15	8
DeCA	NSA SOUTH POTOMAC	Dahlgren	Virginia	195.53	3.01	15
DeCA	DAVIS MONTHAN AFB	Tucson	Arizona	138.51	15.91	115
DeCA	FORT LEE	Fort Lee	Virginia	90.83	22.00	242
DeCA	BEALE AF BASE	Beale AFB	California	176.34	11.15	63
DeCA	DOVER AFB	Unknown	Delaware	89.19	6.99	78

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DeCA	DUGWAY PROVING GROUND	Dugway	Utah	99.06	1.79	18
DeCA	DYESS AIR FORCE BASE	Abilene	Texas	117.33	9.33	80
DeCA	EDWARDS AFB	Unknown	California	126.63	7.65	60
DeCA	EGLIN AFB	Valparaiso	Florida	152.37	16.28	107
DeCA	NAF EL CENTRO CA	El Centro	California	163.24	2.11	13
DeCA	ELLSWORTH AFB	Ellsworth AFB	South Dakota	200.37	14.52	72
DeCA	F E WARREN AFB	Cheyenne	Wyoming	136.70	10.58	77
DeCA	FAIRCHILD AIR FORCE BASE	Unknown	Washington	142.59	12.09	85
DeCA	NAS FALLON NV	Fallon	Nevada	126.34	5.10	40
DeCA	FORT BELVOIR	Fort Belvoir	Virginia	166.82	21.48	129
DeCA	FORT BENNING	Unknown	Georgia	110.31	13.00	118
DeCA	FORT BLISS	El Paso	Texas	188.20	23.07	123
DeCA	FORT BRAGG	Fort Bragg	North Carolina	134.65	12.84	95
DeCA	FORT BRAGG	Fort Bragg	North Carolina	174.48	20.63	118
DeCA	FORT BUCHANAN	Fort Buchanan, Catano	Puerto Rico	145.88	13.87	95
DeCA	FORT CAMPBELL	Fort Campbell	Kentucky	203.49	22.50	111
DeCA	FORT CARSON	Colorado Spgs	Colorado	126.49	12.87	102
DeCA	FORT DETRICK	Frederick	Maryland	201.91	7.93	39
DeCA	FORT DRUM	Fort Drum	New York	181.35	15.02	83
DeCA	FORT EUSTIS	Fort Eustis	Virginia	128.70	13.21	103
DeCA	FORT MCPHERSON	Atlanta	Georgia	28.81	1.98	69
DeCA	FORT GORDON	Augusta	Georgia	142.51	13.14	92
DeCA	FORT HAMILTON	New York City	New York	196.64	9.90	50
DeCA	FORT HOOD	Killeen	Texas	122.86	15.70	128
DeCA	FORT HOOD	Killeen	Texas	156.73	16.56	106
DeCA	FORT HUACHUCA	Fort Huachuca	Arizona	156.53	12.14	78
DeCA	COMBAT SUPPORT TRAINING CENTER AND CAMP PARKS	Dublin	California	196.67	1.53	8
DeCA	NATIONAL TRAINING CENTER AND FORT IRWIN	Fort Irwin	California	158.00	8.93	57
DeCA	FORT JACKSON	Columbia	South Carolina	136.11	17.69	130

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DeCA	FORT KNOX	Unknown	Kentucky	138.56	16.88	122
DeCA	FORT LEAVENWORTH	Fort Leavenworth	Kansas	149.95	11.14	74
DeCA	FORT LEE	Fort Lee	Virginia	160.37	12.95	81
DeCA	FORT LEONARD WOOD	Fort Leonard Wood	Missouri	183.19	13.00	71
DeCA	FORT LEWIS	Tacoma	Washington	138.19	14.51	105
DeCA	FORT MCCOY	Sparta	Wisconsin	235.73	3.75	16
DeCA	FORT MCPHERSON	Atlanta	Georgia	180.43	4.51	25
DeCA	FORT GEORGE G MEADE	Fort Meade	Maryland	198.46	23.42	118
DeCA	FORT MONMOUTH	Red Bank	New Jersey	178.01	9.56	54
DeCA	FORT MYER	Fort Myer	Virginia	97.50	7.23	74
DeCA	FORT POLK	Fort Polk	Louisiana	148.00	12.20	82
DeCA	FORT RILEY	Fort Riley	Kansas	194.12	13.20	68
DeCA	FORT RUCKER	Fort Rucker	Alabama	117.71	10.03	85
DeCA	FORT SAM HOUSTON	Unknown	Texas	151.32	15.80	104
DeCA	FORT SILL	Fort Sill	Oklahoma	115.47	11.73	102
DeCA	FORT STEWART	Fort Stewart	Georgia	127.44	12.05	95
DeCA	NAS JRB FT WORTH TX	Fort Worth	Texas	64.16	5.96	93
DeCA	US ARMY GARRISON HEIDELBERG	Heidelberg	Germany	31.59	24.93	789
DeCA	GOODFELLOW AFB	Unknown	Texas	138.52	7.92	57
DeCA	GRAND FORKS AFB	Grand Forks AFB	North Dakota	137.97	5.69	41
DeCA	NAVAL STATION GREAT LAKES IL	Great Lakes	Illinois	198.76	11.91	60
DeCA	NAVBASE GUAM	Agana	Guam	193.91	11.04	57
DeCA	NAVBASE GUAM	Agana	Guam	88.66	16.60	187
DeCA	CBC GULFPORT MS	Gulfport	Mississippi	264.10	8.16	31
DeCA	MAXWELL AFB	Maxwell AFB	Alabama	105.53	6.97	66
DeCA	YONGSAN GARRISON	Seoul	South Korea	131.91	1.08	8
DeCA	HANSCOM AFB	Bedford	Massachusetts	167.95	12.34	73
DeCA	----	----	----	136.08	7.35	54
DeCA	HICKAM AFB	Hickam AFBase	Hawaii	145.69	16.81	115
DeCA	HILL	Unknown	Utah	145.15	12.61	87
DeCA	HOLLOMAN	Holloman AFB	New Mexico	132.66	9.11	69

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DeCA	FORT STEWART	Fort Stewart	Georgia	148.65	8.58	58
DeCA	HURLBURT FIELD	Unknown	Florida	193.24	12.23	63
DeCA	NAVBASE CORONADO	San Diego	California	123.88	9.70	78
DeCA	INCIRLIK AB	Adana	Turkey	103.49	6.95	67
DeCA	IZMIR AIR STATION	Izmir	Turkey	155.52	2.30	15
DeCA	NAS JACKSONVILLE FL	Jacksonville	Florida	174.09	15.36	88
DeCA	KADENA AIR BASE	Kadena Air Base Okinawa	Japan	111.25	9.67	87
DeCA	RAMSTEIN AIR BASE	Ramstein	Germany	125.00	22.20	178
DeCA	MCB HAWAII KANEOHE	Kaneohe	Hawaii	158.22	12.17	77
DeCA	KEESLER AFB	Biloxi	Mississippi	126.93	12.42	98
DeCA	NAS KEY WEST FL	Stock Island	Florida	218.26	4.65	21
DeCA	SUBASE KINGS BAY GA	Kings Bay	Georgia	117.74	6.19	53
DeCA	NAS KINGSVILLE TX	Kingsville	Texas	162.23	2.39	15
DeCA	KIRTLAND	Kirtland AFB	New Mexico	140.94	15.18	108
DeCA	KUNSAN AIR BASE	Kunsan	South Korea	294.98	4.77	16
DeCA	LACKLAND AIR FORCE BASE	Unknown	Texas	147.36	17.20	117
DeCA	LAJES FIELD	Lajesfield	Portugal	89.81	5.20	58
DeCA	NAWCADLKE NON-NIF LAKEHURST NJ	Lakehurst	New Jersey	174.68	3.22	18
DeCA	LANGLEY AFB	Langley AFB	Virginia	180.37	18.61	103
DeCA	LAUGHLIN AIR FORCE BASE	Unknown	Texas	50.91	3.81	75
DeCA	NAS LEMOORE CA	Lemoore NAS	California	151.47	6.69	44
DeCA	NAVPHIBASE LITTLE CREEK VA	Norfolk	Virginia	172.30	17.30	100
DeCA	LITTLEROCK AFB	Unknown	Arkansas	137.50	13.76	100
DeCA	US ARMY GARRISON LIVORNO	Livorno	Italy	149.38	3.95	26
DeCA	LOS ANGELES AFB	El Segundo	California	108.03	8.08	75
DeCA	LUKE AIR FORCE BASE	Luke AFB	Arizona	113.70	11.61	102
DeCA	MACDILLAFB	Unknown	Florida	108.77	18.58	171
DeCA	MARCH AIR RESERVE BASE	Unknown	California	156.78	18.28	117
DeCA	MAXWELL AFB	Maxwell AFB	Alabama	173.54	15.10	87
DeCA	NAVSTA MAYPORT FL	Jacksonville	Florida	140.31	9.97	71

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DeCA	MCCHORD AFB	Unknown	Washington	123.03	18.18	148
DeCA	BEALE AF BASE	Beale AFB	California	142.99	12.58	88
DeCA	MCCONNELL	Wichita	Kansas	153.21	8.56	56
DeCA	MCGUIRE AFB	McGuire AFB	New Jersey	171.37	17.65	103
DeCA	NAS MERIDIAN MS	Meridian	Mississippi	173.47	5.48	32
DeCA	NAVSUPPACT MIDSOUTH MEMPHIS TN	Millington	Tennessee	170.19	10.43	61
DeCA	MINOT AFB	Minot AFB	North Dakota	154.66	8.73	56
DeCA	MCAS MIRAMAR	San Diego	California	148.21	13.46	91
DeCA	NAVSUBASE NEW LONDON CT	Groton	Connecticut	169.11	4.76	28
DeCA	----	----	----	59.07	3.07	52
DeCA	MOODY AIR FORCE BASE	Moody AFB	Georgia	157.72	6.94	44
DeCA	MT HOME AFB	Unknown	Idaho	129.81	6.95	54
DeCA	NAVSUPPACT NAPLES IT	Naples	Italy	152.09	12.96	85
DeCA	NELLIS	Las Vegas	Nevada	120.73	15.68	130
DeCA	NSA NEW ORLEANS LA	New Orleans	Louisiana	371.83	4.46	12
DeCA	MCB CAMP LEJEUNE NC	Camp Lejeune	North Carolina	73.77	3.40	46
DeCA	NAVSTA NORFOLK VA	Norfolk	Virginia	161.62	12.71	79
DeCA	NAVBASE CORONADO	San Diego	California	184.35	8.53	46
DeCA	NAS OCEANA VA	Virginia Beach	Virginia	173.87	19.11	110
DeCA	OFFUTTAIRFORCEBSE	Offutt A.F.B.	Nebraska	157.00	18.78	120
DeCA	MCB CAMP S D BUTLER OKINAWA JA	Zukeran	Japan	46.55	13.53	291
DeCA	PRESIDIO OF MONTEREY	Monterey	California	89.61	9.98	111
DeCA	OSAN	Osan AFB	South Korea	93.86	9.67	103
DeCA	MCRD BEAUFORT PI SC	Parris Island	South Carolina	113.32	5.01	44
DeCA	PATRICK	Patrick AFB	Florida	107.11	10.99	103
DeCA	NAS PATUXENT RIVER MD	Patuxent River	Maryland	188.26	10.52	56
DeCA	NAVSTA PEARL HARBOR HI	Pearl Harbor	Hawaii	152.57	15.02	98
DeCA	NAS PENSACOLA FL	Pensacola	Florida	172.42	12.72	74
DeCA	PETERSON AFB	Colorado Spgs	Colorado	142.71	14.60	102
DeCA	NAVBASE VENTURA CTY PT MUGU CA	Point Mugu	California	130.57	8.45	65
DeCA	NAVSUPPACT NORFOLK NSY	Portsmouth	Virginia	150.15	7.50	50

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DeCA	MARINE CORPS BASE QUANTICO VA	Quantico	Virginia	173.48	15.27	88
DeCA	RAF ALCONBURY	Cambridge	United Kingdom	139.30	10.75	77
DeCA	RAF CROUGHTON	Unknown	United Kingdom	214.78	4.19	20
DeCA	RAF LAKENHEATH	Lakenheath	United Kingdom	161.03	11.01	68
DeCA	RAF MENWITH HILL	Harrogate	United Kingdom	150.38	5.17	34
DeCA	RAF MILDENHALL	Mildenhall	United Kingdom	55.43	0.77	14
DeCA	RAF FAIRFORD	Fairford	United Kingdom	104.34	3.36	32
DeCA	RANDOLPH AIR FORCE BASE	Unknown	Texas	164.55	15.93	97
DeCA	REDSTONE ARSENAL	Huntsville	Alabama	160.37	12.97	81
DeCA	MCSPTACT KANSAS CITY MO	Belton	Missouri	174.33	4.10	24
DeCA	ROBINS AIR FORCE BASE	Robins AFB	Georgia	165.93	11.65	70
DeCA	ROCK ISLAND ARSENAL	Rock Island	Illinois	99.34	3.30	33
DeCA	NAVSTA ROTA SP	Rota	Spain	139.04	6.95	50
DeCA	CAMP ZAMA	Sagamihara	Japan	61.97	0.24	4
DeCA	NAVBASE SAN DIEGO CA	San Diego	California	127.72	16.30	128
DeCA	MCB CAMP PENDLETON CA	Camp Pendleton	California	222.32	4.50	20
DeCA	NAVSUPPU SARATOGA SPRINGS NY	Saratoga Spgs	New York	174.33	3.83	22
DeCA	US ARMY GARRISON SCHINNEN	Schinnen	Netherlands	219.83	5.28	24
DeCA	SCHOFIELD BARRACKS	Wahiawa	Hawaii	136.10	12.51	92
DeCA	SCOTT AFB	Belleville	Illinois	182.00	20.69	114
DeCA	SELFRIDGE AIR NATIONAL GUARD BASE	Unknown	Michigan	97.27	7.37	76
DeCA	SEYMOUR JOHNSON AIR FORCE BS	Seymour Johnson AFB	North Carolina	162.94	10.70	66
DeCA	SHAW AIR FORCE BASE	Shaw AFB	South Carolina	146.95	8.90	61
DeCA	SHEPPARD AFB	Unknown	Texas	123.43	9.96	81
DeCA	NAS SIGONELLA IT	Sigonella Sicily	Italy	156.61	10.65	68
DeCA	NAVSTA EVERETT WA	Everett	Washington	134.38	8.11	60
DeCA	SPANGDAHLEM	Spangdahlem AB	Germany	87.39	3.82	44
DeCA	CAMP HENRY	Taegu	South Korea	64.07	3.43	54
DeCA	TINKER AFB	Oklahoma City	Oklahoma	191.75	16.69	87
DeCA	TOBYHANNA ARMY DEPOT	Unknown	Pennsylvania	183.76	4.05	22
DeCA	TRAVIS AFB	Fairfield	California	145.46	14.04	97

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DeCA	MCAGCC TWENTYNINE PALMS CA	Twentynine Palms	California	84.50	4.80	57
DeCA	TYNDALL AFB	Unknown	Florida	124.79	9.53	76
DeCA	U S A F ACADEMY	Air Force Academy	Colorado	204.51	13.64	67
DeCA	VANCE AIR FORCE BASE	Unknown	Oklahoma	197.10	6.76	34
DeCA	VANDENBERG MAIN BASE	Lompoc	California	67.74	5.64	83
DeCA	US ARMY GARRISON VICENZA	Vicenza	Italy	201.33	10.99	55
DeCA	FORT DETRICK	Frederick	Maryland	123.63	7.17	58
DeCA	WEST POINT MILITARY RESERVATION	West Point	New York	172.79	12.65	73
DeCA	NAS WHIDBEY ISLAND WA	Whidbey Island NAS	Washington	148.43	9.82	66
DeCA	WHITE SANDS MISSLE RANGE	Unknown	New Mexico	167.66	5.37	32
DeCA	WHITEMAN	Unknown	Missouri	146.89	8.92	61
DeCA	NAS WHITING FLD MILTON FL	Milton	Florida	154.84	3.40	22
DeCA	US ARMY GARRISON WIESBADEN	Wiesbaden	Germany	155.75	9.64	62
DeCA	WRIGHT-PATTERSON AFB	Wright-Patterson AFB	Ohio	160.18	19.71	123
DeCA	YONGSAN GARRISON	Seoul	South Korea	106.56	19.51	183
DeCA	MCAS YUMA AZ	Yuma	Arizona	149.56	5.05	34
DeCA	YUMA PROVING GROUND	Yuma	Arizona	168.34	3.83	23
DFAS	DFAS RO	Rome	New York/US	96.52	33.18	344
DFAS	DFAS LI	Limestone	Maine/US	97.34	13.74	141
DIA	Joint Base Anacostia Bolling	Washington	DC	218.92	290.07	1,325
DIA	DLOC Warehouse	Hyattsville	MD	74.75	19.96	267
DLA	DEFENSE SUPPLY CENTER COLUMBUS	Columbus	Ohio	80.11	364.67	4,552
DLA	DEFENSE DISTR DEPOT SAN JOAQUIN	French Camp	California	28.64	267.60	9,342
DLA	Defense Supply Center Richmond (DSCR)	Richmond	Virginia	43.54	293.19	6,734
DLA	DEFENSE DISTRIBUTION DEPOT SUSQUEHANNA	New Cumberland	Pennsylvania	72.48	492.33	6,792
DLA	NAVSUPPACT MECHANICSBURG PA	Mechanicsburg	Pennsylvania	36.49	176.36	4,833
NGA	----	----	----	434.55	122.20	281
NGA	----	----	----	167.86	137.52	819
NGA	----	----	----	164.77	218.71	1,327
NGA	----	----	----	254.02	164.46	647

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NGA	----	----	----	228.32	154.12	675
NSA	FORT GEORGE G MEADE	Fort Meade	Maryland	286.85	2,808.25	9,790
TMA	NAVMEDCEN PORTSMOUTH VA	Portsmouth	Virginia	189.81	408.09	2,150
TMA	NAVMEDCEN SAN DIEGO CA	San Diego	California	143.33	290.79	2,029
TMA	NAVHOSP GUAM	Naval Supply Depot	Guam	151.48	61.65	407
TMA	NATNAVMEDCEN BETHESDA MD	Bethesda	Maryland	208.87	789.84	3,782
TMA	FORT DETRICK	Frederick	Maryland	350.99	1,178.98	3,359
TMA	WALTER REED ARMY MEDICAL CENTER	Washington, DC	District of Columbia	204.74	881.59	4,306
TMA	NAVMEDCEN BREMERTON WA	Bremerton	Washington	217.58	85.73	394
TMA	NAVHOSP BEAUFORT SC	Beaufort	South Carolina	239.89	105.07	438
TMA	NAVHEALTHCLINIC CHARLESTON SC	Charleston	South Carolina	144.38	57.61	399
WHS	WASHINGTON HEADQUARTERS	Pentagon, Arlington	Virginia	171.93	1,416.39	8,238
WHS	Hybla Valley	Alexandria	Virginia	135.32	15.83	117
WHS	Court of Military Appeals	Washington, DC	District of Columbia	77.98	3.82	49