

FY 2006 ENERGY MANAGEMENT DATA REPORT

Agency: Department of Defense
 Date: 20-Dec-06

Prepared by: CDR Brad Hancock
 Phone: (703) 571-9074

PART 1: ENERGY CONSUMPTION AND COST DATA

1-1. EPACT Goal Subject Buildings

Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou.\$)	Unit Cost (\$)	Site-Delivered Btu (Billion)	Est. Source Btu (Billion)	Est. Carbon Emissions (Metric Tons)	
Electricity	MWH	27,199,447.2	1,958,823.0	\$0.07 /kWh	92,804.5	322,313.4	4,643,938	
Fuel Oil	Thou. Gal.	174,870.7	327,624.9	\$1.87 /gallon	24,254.6	24,254.6	483,878	
Natural Gas	Thou. Cubic Ft.	64,453,026.3	712,329.9	\$11.05 /Thou Cu Ft	66,451.1	66,451.1	961,547	
LPG/Propane	Thou. Gal.	13,528.9	20,548.5	\$1.52 /gallon	1,292.0	1,292.0	21,951	
Coal	S. Ton	689,343.2	54,742.2	\$79.41 /S. Ton	16,944.1	16,944.1	436,140	
Purch. Steam	BBtu	8,197.0	171,662.9	\$20.94 /MMBtu	8,197.0	11,393.9	293,278	
Other	BBtu	615.5	4,580.3	\$7.44 /MMBtu	615.5	615.5		
		Total Costs:	\$3,250,311.7		Total:	210,558.7	443,264.5	6,840,732
Goal Subject Buildings (Thou. Gross Square Feet)		1,887,636.9			Btu/GSF:	111,546.2	234,825.1	
					Btu/GSF w/ RE Purchase Credit:	108,508.3	226,361.4	
					Btu/GSF w/ RE & Sec. 502(e) Credit:	107,212.7	226,361.4	

1-2. EPACT Goal Excluded Facilities

Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou. \$)	Unit Cost (\$)	Site-Delivered Btu (Billion)	Est. Source Btu (Billion)	Est. Carbon Emissions (Metric Tons)	
Electricity	MWH	2,593,092.0	204,927.7	\$0.08 /kWh	8,847.6	30,728.1	442,735	
Fuel Oil	Thou. Gal.	9,445.0	14,066.8	\$1.49 /gallon	1,310.0	1,310.0	26,135	
Natural Gas	Thou. Cubic Ft.	2,087,881.9	23,307.7	\$11.16 /Thou Cu Ft	2,152.6	2,152.6	31,148	
LPG/Propane	Thou. Gal.	198.8	335.9	\$1.69 /gallon	19.0	19.0	323	
Coal	S. Ton	1,999.6	160.5	\$80.26 /S. Ton	49.2	49.2	1,265	
Purch. Steam	BBtu	416.1	3,805.0	\$9.14 /MMBtu	416.1	578.4	14,888	
Other	BBtu	0.3	0.0	\$0.00 /MMBtu	0.3	0.3		
		Total Costs:	\$246,603.5		Total:	12,794.8	34,837.6	516,494
Goal Excluded Facilities (Thou. Gross Square Feet)		69,462.0			Btu/GSF:	184,198.5	501,534.5	
					Btu/GSF w/ RE Purchase Credit:	184,198.5	501,534.5	
					Btu/GSF w/ RE & Sec. 502(e) Credit:	184,198.5	501,534.5	

1-3. Non-Fleet Vehicles and Other Equipment

	Consumption Units	Annual Consumption	Annual Cost (Thou. \$)	Unit Cost (\$)	Btu (Billion)	Est. Carbon Emissions (Metric Tons)
Auto Gasoline	Thou. Gal.	66,641.2	151,275.5	\$2.27 /gallon	8,330.2	161,188
Diesel-Distillate	Thou. Gal.	474,661.7	939,830.1	\$1.98 /gallon	65,835.6	1,313,420
LPG/Propane	Thou. Gal.	1.4	2.6	\$1.86 /gallon	0.1	2
Aviation Gasoline	Thou. Gal.	642.1	2,369.5	\$3.69 /gallon	80.3	1,515
Jet Fuel	Thou. Gal.	3,355,965.7	7,852,959.8	\$2.34 /gallon	436,275.5	8,433,206
Navy Special	Thou. Gal.	704,508.6	1,106,078.5	\$1.57 /gallon	97,715.3	2,099,903
Other	BBtu	900.6	3,827.4	\$4.25 /MMBtu	900.6	
Total Costs			\$10,056,343.4		609,137.6	12,009,234

1-4. WATER CONSUMPTION, COST AND EFFICIENCY MEASURES

	Consumption Units	Annual Consumption	Annual Cost (Thou. \$)
Water	Million Gal.	114,115.9	217,562.3
Best Management Practice Implementation Tracking Data			
Number of facilities* in agency inventory			769.0
Number of facilities with completed water management plans			364.0
Number of facilities with at least four (4) BMPs fully implemented			324.0
*number in the agency inventory, can be buildings, bases, or campuses			

1-5. RENEWABLE ENERGY/RENEWABLE ENERGY CERTIFICATE PURCHASES IN FY 2006

(Only include renewable energy purchases from resources developed after 1990)

Description of <i>Each</i> Renewable Energy Purchase (examples below, insert additional rows as necessary for each separate purchase)	Amount Purchased (MWH)	and	Amount Purchased (Million Btu)	State or Region of Generation or Source	End Use Category (Goal or Excluded)
<i>Electricity from Renewable Source - Specific Locations Below</i>	603,290.4		973.9		
Air Force-USAFA	50.0		0.0	ND	Goal
Air Force-Hill, UT	103,217.0		0.0	WA	Goal
Air Force-Edwards, CA	77,589.0		0.0	NM	Goal
Air Force-Fairchild, WA	11,322.0		0.0	SD	Goal
Air Force-Grand Forks, ND	2,587.0		0.0	ND	Goal
Air Force-Goodfellow, TX	13,415.0		0.0	CA	Goal
Air Force-Lackland, TX	1,800.0		0.0	TX	Goal
Air Force-Laughlin, TX	12,436.0		0.0	TX	Goal
Air Force-Sheppard, TX	44,187.0		0.0	TX	Goal
Air Force-F.E.Warren,WY	3,495.0		0.0	TX	Goal
Air Force-Schriever, CO	1,800.0		0.0	CO	Goal
Air Force-Minot, ND	103,953.0		0.0	ND	Goal
Air Force-Cannon, NM	1,350.0		0.0	NM	Goal
Air Force-Ellsworth, SD	2,160.0		0.0	SD	Goal
Army-Electricity from Renewable Source-MA	406.9		0.0	MA	Goal
Army-Electricity from Renewable Source-WA	25,100.0		0.0	WA	Goal
Army-Electricity from Renewable Source-CO	9,529.2		0.0	CO	Goal
Army-Electricity from Renewable Source-KY	54.0		0.0	KY	Goal
Army-Electricity from Renewable Source-CA	7,245.0		0.0	CA	Goal
Army-Electricity from Renewable Source-OK	47,937.3		0.0	OK	Goal
Navy-Electricity from Renewable Source-VA	133,657.0		0.0	VA	Goal
DeCA-Electricity from Renewable Source - Iceland			973.9	Iceland	Goal
<i>Renewable Energy Certificates - Specific Locations Below</i>	610,491.6		0.0		
Air Force-Edwards, CA	37,945.0		0.0	CA	Goal
Air Force-Kirkland, NM	3,500.0		0.0	NM	Goal
Air Force-Fairchild WA	56,772.3		0.0	WA	Goal
Air Force-Altus, OK	10,761.0		0.0	OK	Goal
Air Force-Columbus, MS	6,781.0		0.0	MS	Goal
Air Force-Goodfellow, TX	8,331.0		0.0	TX	Goal
Air Force-Keesler, MS	19,831.0		0.0	MS	Goal
Air Force-Lackland, TX	46,802.0		0.0	TX	Goal
Air Force-Laughlin, TX	7,706.0		0.0	TX	Goal
Air Force-Little Rock, AR	13,946.0		0.0	AR	Goal
Air Force-Luke, AZ	12,017.0		0.0	AZ	Goal
Air Force-Maxwell, AL	17,740.0		0.0	AL	Goal
Air Force-Randolph, TX	14,900.0		0.0	TX	Goal
Air Force-Sheppard, TX	18,934.0		0.0	TX	Goal
Air Force-Tyndall, FL	17,363.0		0.0	FL	Goal
Air Force-Vance, OK	4,888.0		0.0	OK	Goal
Air Force-Barksdale, LA	13,332.0		0.0	LA	Goal
Air Force-Beale, CA	14,772.0		0.0	CA	Goal
Air Force-Cannon, NM	7,632.0		0.0	NM	Goal
Air Force-Davis-Monthan, AZ	15,664.0		0.0	AZ	Goal
Air Force-Dyess, TX	72,274.3		0.0	TX	Goal
Air Force-Ellsworth, SD	12,731.0		0.0	SD	Goal
Air Force-Holloman, NM	13,534.0		0.0	NM	Goal
Air Force-Langley, VA	19,315.0		0.0	VA	Goal

Air Force-Moody, GA	8,303.0	0.0	GA	Goal
Air Force-Mountain Home, ID	9,302.0	0.0	ID	Goal
Air Force-Nellis, NV	25,027.0	0.0	NV	Goal
Air Force-Offutt, NB	23,936.0	0.0	NB	Goal
Air Force-Seymour Johnson, NC	12,937.0	0.0	NC	Goal
Air Force-Shaw, SC	12,089.0	0.0	SC	Goal
Air Force-Whiteman, MO	11,426.0	0.0	MO	Goal
Army-Renewable Energy Certificates-NE	40,000.0	0.0	NE	Goal
Natural Gas from Landfill/Biomass	0.0	0.0		
Renewable Thermal Energy- Specific Locations Below	0.0	1,419,712.0		
Army-Renewable Thermal Energy-MD	0.0	444,535.0	MD	Goal
Army-Renewable Thermal Energy-AL	0.0	611,153.0	AL	Goal
Navy-Renewable Thermal Energy - VA	0.0	364,024.0	VA	Goal
Other Renewable Energy - Specific Locations Below	0.0	181,100.2		
Army-Other Renewable Energy (wood)-GA	0.0	166,626.0	GA	Goal
Army-Other Renewable Energy (wood)-VT	0.0	4,400.0	VT	Goal
Army-Other Renewable Energy (biodiesel)-PA	0.0	1,386.2	PA	Goal
DeCA- Other Renewable Energy (geothermal)-Iceland	0.0	8,688.0	Iceland	Goal
Total All Purchases	1,213,782.0	1,601,786.1		
Total Purchases for Goal Buildings	1,213,782.0	1,593,098.1		
Total Purchases for Excluded Facilities	0.0	0.0		

1-6. SELF-GENERATED RENEWABLE ENERGY INSTALLED AFTER 1990

	Consumption Units	Total Annual Energy	Energy Used by Agency*
Electricity from Renewables	MWH	321,108.1	24,500.1
Natural Gas from Landfill/Biomass	MMBtu	25,378.2	25,378.2
Renewable Thermal Energy**	MMBtu	2,616,364.9	2,616,364.9
Other Renewable Energy_____***	MMBtu	150,711.7	150,711.7

*Energy used by agency equals total annual generation unless a project sells a portion of the energy it produces to another agency or the private sector. It can equal zero in the case of non-Federal energy projects developed on Federal land.

**Examples are geothermal, solar thermal, and geothermal heat pumps, and the thermal portion of combined heat and power projects. Energy savings from geothermal heat pumps should be based on energy savings compared to conventional alternatives like air-to-air heat pumps. If only electricity savings are known, multiply kWh savings by 3,412 to estimate renewable energy BTUs.

***For other renewable energy that does not fit any category, fill in the type, units used, annual consumption and cost, and include any additional information in your narrative submission. For example, tidal, wave, current and thermal ocean energy, incremental hydropower, or energy displaced by daylighting technology or passive solar design.

1-7. TOTAL RENEWABLE ENERGY USE AS A PERCENTAGE OF FACILITY ELECTRICITY USE

Renewable Energy Use (BBtu)	Facility Electricity Use (BBtu)	RE as a Percentage of Electricity Use
9631.3	101,652.1	9.5%

PART 2: ENERGY EFFICIENCY IMPROVEMENTS

2-1. DIRECT AGENCY OBLIGATIONS

(Agencies may attach their final OMB Circular A-11 Energy and Transportation Efficiency Management Exhibit in lieu of completing Table

	FY 2006		Projected FY 2007	
	(MMBTU)	(Thou. \$)	(MMBTU)	(Thou. \$)
Direct obligations for facility energy efficiency		158,791.8	0.0	164,665.1
Estimated annual savings anticipated from	931,777.4	26,593.8	888,988.8	18,119.8

2-2. ENERGY SAVINGS PERFORMANCE CONTRACTS (ESPC)

	Annual savings (MMBTU)	(number/Thou. \$)
Number of ESPC Task/Delivery Orders	1,325,805.8	19
Investment value of ESPC Task/Delivery Orders awarded in fiscal year.		232,277.7
Amount privately financed under ESPC Task/Delivery Orders awarded in fiscal year.		233,073.4
Cumulative guaranteed cost savings of ESPCs awarded in fiscal year relative to the baseline spending.		429,134.5
Total contract award value of ESPCs awarded in fiscal year (sum of contractor payments for debt repayment, M&V, and other negotiated performance period services).		586,494.4
Total payments made to all ESP contractors in fiscal year.		174,686.2

2-3. UTILITY ENERGY SERVICES CONTRACTS (UESC)

	Annual savings (MMBTU)	(number/Thou. \$)
Number of UESC Task/Delivery Orders	424,245.6	17
Investment value of UESC Task/Delivery Orders awarded in fiscal year.		68,384.7
Amount privately financed under UESC Task/Delivery Orders awarded in fiscal year.		60,211.1
Cumulative cost savings of UESCs awarded in fiscal year relative to the baseline spending.		72,742.3
Total contract award value of UESCs awarded in fiscal year (sum of payments for debt repayment and other negotiated performance period services).		97,473.8
Total payments made to all UESC contractors in fiscal year.		98,946.2

2-4. UTILITY INCENTIVES (REBATES)

	Annual savings (MMBTU)	(Thou. \$)
Incentives received and estimated energy savings	116,074.9	26,440.6
Funds spent in order to receive incentives		19,383.5

2-5. TRAINING

	(number)	(Thou. \$)
Number of personnel trained/Expenditure	3,200	34,600.1