

## FY 2000 ENERGY MANAGEMENT DATA REPORT

Agency: Department of Defense Prepared by: CDR Kelly Snook  
 Date: 10-Jan-01 Phone: (703) 697-6195

### ENERGY CONSUMPTION AND COST DATA

#### Standard Buildings/Facilities

|   |                   | FY 2000            |                        | FY 2001            |                        | FY 2002            |                        |
|---|-------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|
|   | Consumption Units | Annual Consumption | Annual Cost (Thou. \$) | Annual Consumption | Annual Cost (Thou. \$) | Annual Consumption | Annual Cost (Thou. \$) |
| <b>Electricity</b>  | MWH               | 25,108,701.3       | 1,441,792.5            | 24,299,165.0       | 1,423,432.2            | 23,892,468.5       | 1,407,982.9            |
| <b>Fuel Oil</b>   | Thou. Gal.        | 190,737.5          | 120,957.9              | 183,006.8          | 122,057.9              | 179,768.1          | 122,277.9              |
| <b>Natural Gas</b>  | Thou. Cu. Ft.     | 68,105,035.7       | 303,669.6              | 67,645,227.0       | 303,224.5              | 66,521,463.0       | 303,881.5              |
| <b>LPG/Propane</b>  | Thou. Gal.        | 15,991.8           | 12,423.7               | 15,503.0           | 13,517.7               | 15,255.1           | 14,462.1               |
| <b>Coal</b>   | S. Ton            | 660,957.2          | 35,036.2               | 660,267.5          | 34,994.6               | 648,878.0          | 35,293.0               |
| <b>Purch. Steam</b>   | BBtu              | 9,740.0            | 117,777.2              | 9,684.0            | 118,953.0              | 9,530.7            | 120,252.1              |
| <b>Other</b>  | BBtu              | 1,109.0            | 604.1                  | 1,092.0            | 587.2                  | 1,076.0            | 594.2                  |
| <b>Total Costs</b>  |                   | 2,032,261.2        |                        | 2,016,767.1        |                        | 2,004,743.7        |                        |
| <b>Standard Buildings/Facilities (Thous. Gross Square Feet)</b> |                   | 2,004,828.5        |                        | 1,999,411.1        |                        | 1,999,071.1        |                        |

#### Industrial, Laboratory, Research, and Other Energy-Intensive Facilities

|   |                   | FY 2000            |                        | FY 2001            |                        | FY 2002            |                        |
|---|-------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|
|   | Consumption Units | Annual Consumption | Annual Cost (Thou. \$) | Annual Consumption | Annual Cost (Thou. \$) | Annual Consumption | Annual Cost (Thou. \$) |
| <b>Electricity</b>  | MWH               | 3,949,287.6        | 185,596.8              | 3,915,414.5        | 184,668.8              | 3,250,111.0        | 157,285.7              |
| <b>Fuel Oil</b>   | Thou. Gal.        | 33,898.3           | 16,067.8               | 30,677.7           | 14,937.5               | 30,005.8           | 14,413.3               |
| <b>Natural Gas</b>  | Thou. Cu. Ft.     | 9,163,527.8        | 34,095.5               | 9,287,082.5        | 33,093.6               | 7,056,373.3        | 26,009.6               |
| <b>LPG/Propane</b>  | Thou. Gal.        | 675.9              | 631.0                  | 666.6              | 619.8                  | 647.4              | 629.6                  |
| <b>Coal</b>   | S. Ton            | 143,968.0          | 6,100.6                | 140,027.7          | 6,007.9                | 137,927.1          | 5,966.8                |
| <b>Purch. Steam</b>   | BBtu              | 1,053.4            | 4,549.0                | 1,079.1            | 4,523.4                | 856.3              | 3,722.1                |
| <b>Other</b>  | BBtu              | -                  | 187.4                  | -                  | 157.0                  | -                  | 157.0                  |
| <b>Total Costs</b>  |                   | 247,228.1          |                        | 244,007.8          |                        | 208,184.1          |                        |
| <b>Energy-Intensive Facilities (Thous. Gross Square Feet)</b> |                   | 195,613.5          |                        | 195,662.5          |                        | 170,321.5          |                        |

#### Exempt Facilities

|   |                   | FY 2000            |                        | FY 2001            |                        | FY 2002            |                        |
|---|-------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|
|   | Consumption Units | Annual Consumption | Annual Cost (Thou. \$) | Annual Consumption | Annual Cost (Thou. \$) | Annual Consumption | Annual Cost (Thou. \$) |
| <b>Electricity</b>                                  | MWH               | 1,643,923.0        | 101,941.7              | 1,615,154.7        | 99,156.1               | 1,590,927.4        | 94,709.1               |
| <b>Fuel Oil</b>                                     | Thou. Gal.        | 17,847.3           | 10,197.7               | 12,458.3           | 7,260.8                | 12,271.4           | 7,081.8                |
| <b>Natural Gas</b>                                  | Thou. Cu. Ft.     | 252,775.9          | 734.8                  | 786,329.4          | 2,285.9                | 774,534.5          | 2,274.1                |
| <b>LPG/Propane</b>                                  | Thou. Gal.        | -                  | -                      | -                  | -                      | -                  | -                      |
| <b>Coal</b>   | S. Ton            | -                  | -                      | -                  | -                      | -                  | -                      |
| <b>Purch. Steam</b>                                 | BBtu              | 471.3              | 2,796.6                | 553.6              | 3,284.9                | 545.3              | 3,268.0                |
| <b>Other</b>  | BBtu              | 758.7              | 8,431.1                | 748.6              | 8,318.7                | 737.4              | 8,275.9                |
| <b>Total Costs</b>                                  |                   | 124,101.9          |                        | 120,306.5          |                        | 115,608.9          |                        |
| <b>Exempt Facilities (Thous. Gross Square Feet)</b> |                   | -                  |                        | -                  |                        | -                  |                        |

**Tactical Vehicles and Other Equipment**

|                   | Consumption Units | FY 2000            |                        | FY 2001            |                        | FY 2002            |                        |
|-------------------|-------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|
|                   |                   | Annual Consumption | Annual Cost (Thou. \$) | Annual Consumption | Annual Cost (Thou. \$) | Annual Consumption | Annual Cost (Thou. \$) |
| Auto Gasoline     | (Thou. Gal.)      | 48,421.2           | 31,154.2               | 47,789.0           | 34,511.5               | 49,027.0           | 38,328.4               |
| Diesel-Distillate | (Thou. Gal.)      | 777,195.5          | 463,271.3              | 737,965.2          | 698,216.2              | 739,289.2          | 599,902.5              |
| LPG/Propane       | (Thou. Gal.)      | 242.1              | 185.2                  | 226.4              | 176.5                  | 216.9              | 173.7                  |
| Aviation Gasolin  | (Thou. Gal.)      | 13.0               | 23.0                   | 12.6               | 25.0                   | 12.2               | 27.5                   |
| Jet Fuel          | (Thou. Gal.)      | 3,039,443.0        | 2,190,267.0            | 3,322,871.1        | 2,552,919.0            | 3,548,314.8        | 2,442,887.0            |
| Navy Special      | (Thou. Gal.)      | 46,334.4           | 17,607.0               | 47,044.0           | 30,578.0               | 49,522.0           | 27,404.0               |
| Other             | (Billion Btu)     | 583.0              | 278.0                  | 565.5              | 285.0                  | 548.5              | 291.5                  |
| Total Costs       |                   | 2,702,785.7        |                        | 3,316,711.2        |                        | 3,109,014.6        |                        |

**WATER CONSUMPTION AND COST DATA**

|       | Consumption Units | FY 2000            |                        | FY 2001            |                        | FY 2002            |                        |
|-------|-------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|
|       |                   | Annual Consumption | Annual Cost (Thou. \$) | Annual Consumption | Annual Cost (Thou. \$) | Annual Consumption | Annual Cost (Thou. \$) |
| Water | Million Gal.      | 207,371.4          | 309,525.0              | 203,497.8          | 308,385.5              | 200,291.1          | 308,714.1              |

**RENEWABLE ENERGY PURCHASES**

|   | Consumption Units | FY 2000            |                        | FY 2001            |                        | FY 2002            |                        |
|---|-------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|
|   |                   | Annual Consumption | Annual Cost (Thou. \$) | Annual Consumption | Annual Cost (Thou. \$) | Annual Consumption | Annual Cost (Thou. \$) |
| Electricity from Renewables   | MWH               | 164,075.6          | 5,221.0                | 164,090.6          | 5,220.5                | 164,090.6          | 5,220.5                |
| Natural Gas from Renewable Thermal Energy   | Thou. cubic ft.   | 9,704.0            | (68.2)                 | 9,813.8            | (79.2)                 | 9,813.8            | (79.2)                 |
|   | MMBtu             | 803,530.0          | 14,039.0               | 803,530.0          | 14,039.0               | 803,530.0          | 14,039.0               |
| Average annual savings/costs anticipated from expenditures (show costs as negative) |                   |                    | (617.6)                |                    | (629.0)                |                    | (629.0)                |

**ENERGY EFFICIENCY IMPROVEMENTS**

**DIRECT AGENCY OBLIGATIONS**

|   | FY 2000        |            | FY 2001        |            | FY 2002        |            |
|---|----------------|------------|----------------|------------|----------------|------------|
|   | Annual Savings |            | Annual Savings |            | Annual Savings |            |
|   | (MMBTU)        | (Thou. \$) | (MMBTU)        | (Thou. \$) | (MMBTU)        | (Thou. \$) |
| Average annual savings anticipated from obligations   | 557,541.7      | 11,238.8   | 484,607.7      | 7,990.7    | 1,080,976.7    | 12,317.1   |
| Direct obligations for facility energy efficiency improvements, including facility surveys/audits |                | 44,442.0   |                | 37,246.5   |                | 56,292.5   |

**ENERGY SAVINGS PERFORMANCE CONTRACTS (ESPC)**

|  | FY 2000                |                   | FY 2001                |                   | FY 2002                |                   |
|--|------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|
|  | Annual Savings (MMBTU) | (number/Thou. \$) | Annual Savings (MMBTU) | (number/Thou. \$) | Annual Savings (MMBTU) | (number/Thou. \$) |
| Number of ESP contracts awarded in fiscal year & annual energy (MMBTU) savings       | 1,274,866.0            | 58.0              | 1,735,123.0            | 89.0              | 1,896,982.0            | 98.0              |
| Total value of ESP contracts awarded in fiscal year                                  |                        | 414,562.9         |                        | 679,096.0         |                        | 706,061.0         |
| Estimated life-cycle cost savings of ESPCs awarded in fiscal year (Contractor share) |                        | 487,252.0         |                        | 759,802.0         |                        | 832,634.0         |
| Estimated life-cycle cost savings of ESPCs awarded in fiscal year (Government share) |                        | 56,352.0          |                        | 37,327.0          |                        | 48,475.0          |
| Total <i>annual</i> payments made to all ESP contractors                             |                        | 31,093.0          |                        | 61,595.4          |                        | 97,006.6          |

**UTILITY ENERGY SERVICES CONTRACTS (UESC)**

|  | FY 2000                |                   | FY 2001                |                   | FY 2002                |                   |
|--|------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|
|  | Annual Savings (MMBTU) | (number/Thou. \$) | Annual Savings (MMBTU) | (number/Thou. \$) | Annual Savings (MMBTU) | (number/Thou. \$) |
| Number of utility energy services contracts awarded in fiscal year                   | 1,340,321.0            | 41.0              | 943,091.0              | 23.0              | 985,718.0              | 27.0              |
| Total value of utility energy services contracts awarded in fiscal year              |                        | 148,687.0         |                        | 110,945.0         |                        | 128,738.0         |
| Estimated life-cycle cost savings of UESCs awarded in fiscal year (Contractor share) |                        | 139,883.0         |                        | 110,984.0         |                        | 135,675.0         |
| Estimated life-cycle cost savings of UESCs awarded in fiscal year (Government share) |                        | 134,679.0         |                        | 85,269.0          |                        | 143,195.0         |
| Total <i>annual</i> payments made to all UES contractors                             |                        | 12,321.3          |                        | 20,526.0          |                        | 29,156.0          |

**UTILITY INCENTIVES (REBATES)**

|  | FY 2000                |                   | FY 2001                |                   | FY 2002                |                   |
|--|------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|
|  | Annual Savings (MMBTU) | (number/Thou. \$) | Annual Savings (MMBTU) | (number/Thou. \$) | Annual Savings (MMBTU) | (number/Thou. \$) |
| Incentives received and estimated energy savings | 3,019.0                | 841.0             | 7,645.0                | 1,579.0           | 7,645.0                | 1,884.0           |
| Funds spent in order to receive incentives       |                        | 577.0             |                        | 5.0               |                        | 5.0               |

**TRAINING**

|  | FY 2000  |            | FY 2001  |           | FY 2002  |           |
|--|----------|------------|----------|-----------|----------|-----------|
|  | (number) | (Thou. \$) | (number) | Thous. \$ | (number) | Thous. \$ |
| <b>Number of personnel trained/Expenditure</b> | 2,361.0  | 1,542.1    | 1,937.0  | 1,470.0   | 1,913.0  | 1,453.8   |

**IDENTIFICATION OF FUNDS**

|  | Amount (thou. \$) | Account | Program        | Line Item | Page in Budget Request |
|--|-------------------|---------|----------------|-----------|------------------------|
| <b>ESPC or utility service contracts negotiation/management</b>    | 4,961.0           | O&M     | ESPC/Utilities |           |                        |
| <b>Direct spending on efficiency</b>                               | 35,000.0          | MILCON  | ECIP           |           |                        |
| <b>Direct spending on training</b>                                 | 1,452.1           | O&M     | Training       | -         |                        |
| <b>Energy Star building design/ construction incremental costs</b> | 500.0             | O&MN    | FEMP, N        |           |                        |
| <b>"Green Power" purchases</b>                                     | -                 |         |                |           |                        |
| <b>On-site generation and renewable energy</b>                     | -                 |         |                |           |                        |