

# **NETS**

## **NASA Environmental Tracking System**

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### **Energy & Water Guide**



**National Aeronautics and Space Administration**

**Glenn Research Center**

**Environmental Management Office  
Cleveland, Ohio**

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## Energy Main Menu

The following update screens are available through the use of the Energy option. Click on the required updated document title to access the correct screen help.

Annual MV/EIF Energy Consumption  
Audits  
Audit Projects  
Contract Award  
Energy Initiative \*  
Facility Area Summary  
Funding Requests for Energy and Transportation Efficiency Management  
MV/EIF Facility Energy Consumption  
Other Scorecard Data  
Project \*  
Quarterly Energy Consumption  
Rebates  
Water Conservation

Energy POP

[Click here for Common Terms.](#)

[Click here for Units of Measurements.](#)

[Click here for Energy Reports.](#)

## LOV Tables

The List of Values (LOV) table, is a drop-down selection window available on individual data collection screens. The LOV may be a selection of Yes, No or N/A answers, a list of chemicals, site names, record destinations, document types, status types, *etc.* With the exception of the NETS Reporting option, all LOV field selection instructions are standard.

### Selecting from the LOV

To access the LOV fields and select a field entry, do the following:

1. Move the mouse pointer to the LOV field and click on the down arrow. This will display the related list of values in a drop-down window.
2. Use the scroll bar to move up or down through the list to the required value

## Common Terms

Non-Mission Variable Building

Energy\_Intensive\_Facility  
Mission Variable Facility  
Vehicles and Other Equipment

[Click here to return to Energy Main Menu.](#)

## **Non-Mission Variable Building**

Standard buildings or facilities that are subject to the energy efficiency improvement goals for Federal buildings set forth in EO 13123, Section 202. This category includes office buildings, storage buildings, laboratories, and other research and development buildings that are not energy-intensive. It does not necessarily include industrial and laboratory facilities housing energy-intensive activities, or mission variable facilities for which NASA claims exemption from Federal energy efficiency improvement goals. However, Centers may designate energy-intensive facilities as non-mission variable at their discretion.

## **Energy Intensive Facility**

Buildings or facilities that are subject to the energy efficiency improvement goals for industrial and laboratory facilities set forth in EO 13123, Section 203. This definition includes laboratories, research facilities, electronics-intensive facilities, and facilities housing 24-hour-a-day operations that consume energy far in excess of the normal heating, cooling, lighting, ventilation, and water heating energy load requirements of a standard building or facility of comparable size. This category includes:

a. Industrial Facilities: Any fixed equipment, building, or complex for production, manufacturing, or other processes that uses large amounts of capital equipment in connection with, or as part of, any process or system, and within which the majority of energy use is not devoted to the heating, cooling, lighting, ventilation, or water heating energy load requirements of the facility. Examples of industrial facilities are:

(1) Manufacturing Facilities: Manufacturing facilities use large amounts of industrial equipment in a well-defined process to produce multiple units of individual finished products from raw materials and prepurchased subassemblies as required to support the missions of the individual NASA Strategic Enterprises.

(2) Refurbishment and Coating Facilities: Refurbishment and coating facilities repair or restore the original condition of multiple units of individual products as required to support the missions of the individual NASA Strategic Enterprises. This includes the replacement of worn/damaged components and the preparation required for the application of a coating system such as sandblasting and cleaning.

## **Mission Variable Facility**

Energy-intensive buildings or facilities for which NASA claims exemption from the energy efficiency improvement goals for standard buildings and industrial and laboratory facilities set forth in EO 13123, Sections 202 and 203. Exemptions must be justified on the basis of technical or economic infeasibility of making significant energy efficiency improvements due to the facility's physical nature or where conventional performance measures are rendered meaningless by an overwhelming proportion of process-dedicated energy. This category includes:

a. Wind Tunnel/Model Development Facility: Aerodynamic and aeropropulsion research and development facilities that provide low and/or high speed conditioned gas flow for performance, controls, and other aerospace testing of components and models.

b. Goldstone Deep Space Communications Complex: One of the three Deep Space Network communication complexes worldwide which support NASA's planetary and interplanetary missions. This category includes all energy-consuming facilities at the Goldstone complex.

c. Operational, Test, and Support Facilities, Cleanrooms, and other energy-intensive facilities that meet the following criteria:

- (1) Contain equipment, processes, or systems used in scientific research, development, test, and evaluation in direct support of one or more of NASA's Strategic Enterprises.
- (2) Energy costs are funded by benefiting program(s) (except where all facility energy costs are paid by the institution from a single appropriation).
- (3) Annual energy usage equals or exceeds the minimum British Thermal Units (BTU) per gross square foot per year (BTU/GSF/Year) values shown in Table 2-1 for facilities classified as "Buildings"; or five billion BTU's for facilities classified as "Other Structures".

<b>Center/Component Facility</b>	<b>Minimum BTU/GSF/Year</b>
<b>Glenn Research Center</b>	<b>375,000</b>
<b>Plum Brook Station</b>	<b>375,000</b>
<b>Goddard Space Flight Center</b>	<b>350,000</b>
<b>Langley Research Center</b>	<b>325,000</b>
<b>Wallops Flight Facility</b>	<b>325,000</b>
<b>Dryden Flight Research Center</b>	<b>300,000</b>
<b>Marshall Space Flight Center</b>	<b>300,000</b>
<b>Tracking Stations</b>	<b>300,000</b>
<b>White Sands Test Facility</b>	<b>300,000</b>
<b>Ames Research Center</b>	<b>275,000</b>
<b>Johnson Space Center</b>	<b>275,000</b>
<b>Michoud Assembly Facility</b>	<b>275,000</b>
<b>Stennis Space Center</b>	<b>275,000</b>
<b>Jet Propulsion Laboratory</b>	<b>250,000</b>
<b>Kennedy Space Center</b>	<b>250,000</b>
<b>NASA Industrial Plant Downey</b>	<b>250,000</b>
<b>Santa Susana Field Laboratory</b>	<b>250,000</b>

## **Vehicles and Other Equipment**

NASA owned or leased mobile assets, including automobiles, trucks, aircraft, and other types of equipment. These assets generally consume petroleum-based fuels such as gasoline, diesel fuel, jet fuel and aviation gasoline, but may also be powered by alternative fuels including LPG/propane, compressed natural gas, ethanol, methanol, and electricity.

## **Units of Measurements**

BBTU – Billion British Thermal Units

GCF – Gross Cubic Feet

GSF – Gross Square Feet

KCUFT – Thousand Cubic Feet

KSF – Thousand Square Feet  
MBTU – Million British Thermal Units  
MWH – Mega Watt Hours

## **Outstanding Documents**

The reporting screen contains an Outstanding documents counter. This option allows the user to see which documents related to the specified tab have not been completed for the current reporting year. All documents must be completed for each reporting year.

## **Energy Reports**

Listed below are all of the Energy Menu Items (Data Source). These are the screen names for the data input:

**Annual MV/EIF Energy**  
**Audits**  
**Audit Projects**  
**Contract Award**  
**Facility Area Summary**  
**Energy Initiative**  
**MV/EIF Facilities**  
**Other Scorecard Data**  
**POP Exhibit 55**  
**Project**  
**Project POP**  
**Quarterly Energy**  
**Rebates**  
**Water Conservation**

Following is a list of Report Names and the Energy Menu Items used to create the report.

### **Energy Accomplishment Reports**

#### **Energy Efficiency and Water Conservation Projects Summary**

- Audit Projects, Project POP, Rebates

#### **Energy Initiatives Report**

- Energy Initiative

#### **Energy Projects Report**

- Project

#### **Energy Training Report**

- Initiative, Training

**ESPC Report**

- Contract Award Type ESPC

**UESC Report**

Contract Award Type UESC

**Energy Budget Reports**

**Annual Energy Management Data Report**

Quarterly Energy, Facility Area Summary, MV/EIF Facility Energy Consumption, Initiatives, Water Conservation, Rebates, Contract Award

**Energy Metrics Reports**

**Facilities Audit Report**

- Audits, MV/EIF Facility Energy Consumption, Facility Area Summary

**Cleanroom Facilities/Improvements**

- MV/EIF Facility Energy Consumption, Annual MV/EIF Energy

**EIF Building Energy Reduction Report**

- Quarterly Energy, Annual MV/EIF Energy, MV/EIF Facility Energy Consumption

**EIF Building Energy Reduction Report (With Actuals)**

- Quarterly Energy, Annual MV/EIF Energy, MV/EIF Facility Energy Consumption

**EIF Building Energy Reduction Report Graph**

- Quarterly Energy, Annual MV/EIF Energy, MV/EIF Facility Energy Consumption

**EIF Quarterly Building Energy Reduction Report Graph**

- Quarterly Energy, Annual MV/EIF Energy, MV/EIF Facility Energy Consumption

**Energy Scorecard (MS Word)**

- Other Scorecard Data, Facility Area Summary, MV/EIF Facility Energy Consumption, Contract Award, Initiatives

**Facilities Petroleum Usage Reduction Report**

- Quarterly Energy

**Goldstone Deep Space Communication Complex Improvements**

- MV/EIF Facility Energy Consumption, Annual MV/EIF Energy

**Greenhouse Gases Reduction Report**

- Quarterly Energy

**Greenhouse Gases Reduction Report Graph**

- Quarterly Energy

**Manufacturing Facilities/Improvements**

- MV/EIF Facility Energy Consumption, Annual MV/EIF Energy

**NMV Building Energy Reduction Report**

- Facility Area Summary, Quarterly Energy, MV/EIF Facility Energy Consumption

**NMV Building Energy Reduction Report (With Actuals)**

- Facility Area Summary, Quarterly Energy, MV/EIF Facility Energy Consumption

**NMV Building Energy Reduction Report Graph**

- Facility Area Summary, Quarterly Energy, MV/EIF Facility Energy Consumption

**NMV Quarterly Building Energy Reduction Report Graph**

- Facility Area Summary, Quarterly Energy, MV/EIF Facility Energy Consumption

**Operational, Test, and Support Facilities/Improvements**

- MV/EIF Facility Energy Consumption, Annual MV/EIF Energy

**Operational, Test, and Support Facilities/Improvements by Site**

- MV/EIF Facility Energy Consumption, Annual MV/EIF Energy

**Quarterly Performance Report**

- Quarterly Energy

**Refurbishing and Coating Facilities/Improvements**

- MV/EIF Facility Energy Consumption, Annual MV/EIF Energy

**Utility Distribution Facilities/Improvements**

- MV/EIF Facility Energy Consumption, Annual MV/EIF Energy

**Water Conservation Goal Report**

- Water Conservation

**Energy Statistical Reports**

**Building Area Summary Report**

- MV/EIF Facility Energy Consumption, Facility Area Summary

**Energy Intensive and MV Facilities Report**

- MV/EIF Facility Energy Consumption

**Energy Quarterly Download**

- Quarterly Energy

**Fiscal Year Historical Consumption by Type Report**

- Quarterly Energy

**Fiscal Year Historical Consumption Energy Report**

- Quarterly Energy

**Quarterly Consumption Progress Report**

- Quarterly Energy

**Quarterly Cost Report**

- Quarterly Energy

**Quarterly Reporting Progress Report**

- Quarterly Energy

**Total Square Footage Report**

- MV/EIF Facility Energy Consumption, Facility Area Summary

**Annual MV/EIF Energy Consumption**

Fuels or utility services that power NASA Mission Variable or energy intensive facilities and equipment.

The total annual energy consumed by NASA Mission Variable or energy intensive facilities.

Reporting Year

MV/EIF Energy Consumption Type

Annual Energy Consumption Category

Annual Energy Consumption (MBTU)

Tracking Hours or Units Produced

[Heating Degree Days Quantity \(Optional\)](#)

Cooling Degree Days Quantity (Optional)

Input Quantity (MBTU)

Output Quantity (MBTU)

Date/Site/User

[Click here for Common Terms.](#)

[Click here for Units of Measurements.](#)

[Click here to return to Energy Main Menu.](#)

**MV/EIF Energy Consumption Type**

The designation that identifies the Mission Variable or energy intensive facility energy category of a building, structure, or complex.

## **Annual Energy Consumption Category**

The formal designation that identifies a building, structure, or complex as non-mission variable, energy intensive facility, or mission variable.

## **Annual Energy Consumption (MBTU)**

The total usage of a specific energy type during the twelve month period being reported in in millions of British Thermal Units (MBTUs).

## **Tracking Hours or Units Produced**

Productive output of Mission Variable or Energy-intensive industrial facilities (i.e. mission tracking hours or external tanks produced).

## **Heating Degree Days Quantity (Optional)**

The annual summation of average daily temperature variances below a 65 degree Fahrenheit base.

## **Cooling Degree Days Quantity (Optional)**

The annual summation of average daily temperature variances above a 70 degree Fahrenheit base.

## **Input Quantity (MBTU)**

The measured amount of energy or fuel entering a utility system, expressed in millions of British Thermal Units (MBTU).

## **Output Quantity (MBTU)**

The measured amount of energy that is produced from the input, expressed in millions of British Thermal Units (MBTU).

## **Audits**

A survey of a building or facility to identify opportunities to reduce costs through changes to the structure, systems, equipment, or operations and maintenance procedures.

Reporting Year

Audit Category

Audit Quantity (GSF)

Re-Audit Quantity (GSF)

Audit Description

Date/Site/User

[Click here for Common Terms.](#)

[Click here for Units of Measurements.](#)

[Click here to return to Energy Main Menu.](#)

## **Audit Category**

The designation that indicates the level of detail undertaken as part of the formalized examination of a facility.

Walkthrough Audit

Comprehensive Audit

[Click here to return to Audits.](#)

## **Walkthrough Audit**

A visual inspection of a building or facility that is used to determine operation and maintenance energy savings opportunities, as well as gather information to determine the need for a Comprehensive Audit. Walkthrough audits are the least costly type on audit and do not attempt to quantify energy savings or estimate implementation costs. Walkthrough audits are applicable to mission variable facilities and non-mission variable facilities under 10,000 gross square feet.

## **Comprehensive Audit**

A survey of a building or facility that provides sufficiently detailed information to allow the site to enter into an energy savings performance contract or to invite inspection and bids by private upgrade specialists for direct agency-funded energy or water efficiency investments. Comprehensive audits are required for all non-mission variable facilities over 10,000 gross square feet and recommended for mission variable buildings over 10,000 gross square feet. Comprehensive audits should include information such as the following:

- (a) the type, size, energy use, and performance of the major energy using systems and their interaction with the building envelope, the climate and weather influences, usage patterns, and related environmental concerns:
- (b) appropriate energy and water conservation maintenance and operating procedures;
- (c) recommendations for the acquisition and installation of energy conservation measures, including solar and other renewable energy and water conservation measures; and
- (d) a strategy to implement the recommendations.

## **Audit Quantity (GSF)**

The counted gross square feet of all buildings that were included in a specific audit type.

## **Re-Audit Quantity (GSF)**

The total building gross square footage audited for energy and water conservation opportunities during the current fiscal year that had been previously audited at least once since FY 1994. (Do not count gross square footage that was audited for the first time since FY 1994.)

## **Audit Description**

A summarized narrative providing information about the type of facility energy survey performed, the buildings and facilities included in the survey, and the overall scope of the survey in targeting opportunities to reduce costs through changes to the structure, systems, equipment, or operations and maintenance procedures.

## **Audit Projects**

Energy and water conservation projects identified by Facility Audits.

Reporting Year

Number of Projects Identified by Audits this Year

Number of Identified Projects that were Initiated this Year

Audit Project Description

Date/Site/User

[Click here for Common Terms.](#)

[Click here for Units of Measurements.](#)

[Click here to return to Energy Main Menu.](#)

## **Number of Projects Identified by Audits this Year**

The count of projects that were identified during all the audits conducted during the reporting year that were determined to have no more than a 10 year simple payback.

## **Number of Identified Projects that were Initiated this Year**

The count of projects that were identified during audits conducted during the reporting year, or any previous year, that were started during the reporting year.

## **Audit Project Description**

A summarized narrative highlighting the cost-effective energy and water conservation opportunities identified by Facility Audits.

## **Contract Award**

All types of formal agreements and orders for implementing energy and water conservation measures using alternative financing arrangements.

Reporting Year  
Contract Type  
Contract Status  
Vendor Name  
Contract Duration (Years)  
Annual Savings Amount (\$K)  
Annual Savings Quantity (MBTU)  
Initial Contractor Capital Investment Amount (\$K)  
Estimated Life-Cycle Contractor Share of Savings (\$K)  
Estimated Life-Cycle Government Share of Savings (\$K)  
Amount Privately Financed (\$K)  
Total Incentive Amount (\$K)  
Annual Payment to Contractor (\$K)  
Purpose of Contract  
Savings Verification Description  
Description of Benefit  
Savings Use Description  
Problems Encountered  
Recommended Solution Description  
Contract Number  
Date/Site/User

[Click here for Common Terms.](#)

[Click here for Units of Measurements.](#)

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### **Contract Type**

An abbreviation designating the category of formalized agreement and/or order.

UESC - Utility Energy-Efficiency Service Contract

ESPC - Energy Savings Performance Contracts

### **Contract Status**

The implementation stage of the contract (i.e. Awarded, Completed, Planned).

### **Vendor Name**

The formal designation of the supplier of the services and associated capital items to the Government under the terms of a specific contract.

### **Contract Duration (Years)**

Number of years the contract remains in effect from award date to termination date rounded to the nearest whole number.

### **Annual Savings Amount (\$K)**

A calculated savings, expressed in thousands of US dollars (\$K), for the reporting year, from implementation of contracted services.

### **Annual Savings Quantity (MBTU)**

A calculated energy savings, expressed in millions of British Thermal Units (MBTU), for the reporting year, from the implementation of contracted services.

### **Initial Contractor Capital Investment Amount (\$K)**

The initial amount funded by the contractor to construct or implement the project.

### **Estimated Life-Cycle Contractor Share of Savings (\$K)**

For ESPC and UESC contracts, the total projected amount of savings, expressed in thousands of US dollars (\$K), to be paid to the contractor over the life of the contract. Use actual then-year dollars; do not discount or use net present value of payments.

This applies only to contracts or delivery orders awarded in a specific year (not cumulative). Applies to both UESC and ESPC contracts.

### **Estimated Life-Cycle Government Share of Savings (\$K)**

For ESPC and UESC contracts, the total projected amount of savings, expressed in thousands of US dollars (\$K), retained by the government over the life of the contract. Use actual then-year dollars; do not discount or use net present value of savings.

This applies only to contracts or delivery orders awarded in a specific year (not cumulative). Applies to both UESC and ESPC contracts.

### **Amount Privately Financed (\$K)**

The amount financed for an ESPC or UESC project includes: The ESCO's project development expense, plus markup, for each ECM, implementation expense, plus markup, for each ECM, and financing procurement price (FPP). The financed amount is decreased by any pre-performance-period payments.

### **Annual Payment to Contractor (\$K)**

The average annual dollar payment to contractors.

Applies to both UESC and ESPC contracts.

### **Total Incentive Amount (\$K)**

The total dollar value of rebates and other incentives provided by the utility company as part of the UESC agreement.

Does not apply to ESPC contracts.

### **Purpose of Contract**

A summarized narrative identifying the energy and water conservation measures to be implemented under the formalized agreement and/or order.

### **Savings Verification Description**

A summarized narrative explaining the methods and procedures used to measure and validate annual cost and BTU savings resulting from awarded energy contracts.

### **Description of Benefit**

A summarized narrative identifying the quantitative and qualitative advantage of the specific contract for supplies and or services.

### **Savings Use Description**

A summarized narrative describing the intended purpose for the moneys that were saved as a result of implementing a specific contract.

### **Problems Encountered**

Description of technical or contractual problems encountered in planning or administering ESPC or UESC contracts.

### **Recommended Solution Description**

Description of potential or actual solutions to problems encountered during the award process in connection with ESPC or UESC contracts.

### **Contract Number**

For ESPC contracts, the DOD super-ESPC contract number or NASA contract number. For UESC contracts, the utility service contract number or basic ordering agreement number used to establish the UESC agreement.

### **Energy Initiative \***

A management activity undertaken to comply with Federal energy and water conservation requirements and goals.

Reporting Year

Energy Initiative Type

Energy Initiative Status

Energy Initiative Description  
Date/Site/User

\* = Outstanding documents

[Click here for Common Terms.](#)

[Click here for Units of Measurements.](#)

[Click here to return to Energy Main Menu.](#)

## **Energy Initiative Type**

A formal designation identifying a specific energy or water conservation related management activity or project.

Listed below is the list of values for Energy Initiative Type:

- 403 (b). Procurement of Energy Efficient Products by Federal Agencies
- 403 (c). ENERGY STAR Buildings
- 403 (e). Model Lease Provisions
- 404 (a). Competitive Power and Natural Gas
- 404 (c). Purchased Electricity from Renewable Sources
- 406 (a). Incentive Awards
- 406 (b). Performance Evaluations
- 406 (d). Federal Agency Energy Management Training
- 406 (e). Showcase Facilities (New and Existing)
- DOE/EPA Federal Energy Star Program Partnerships
- Electrical Load Reduction Measures
- Environmental Benefits and Energy Management
- Operations and Maintenance Procedures Utilized to Increase Energy Efficiency

Please refer to Execute Order 13123 for further explanation.

[Return to Energy Initiative \\*](#)

## **Procurement of Energy Efficient Products by Federal Agencies**

(1) Agencies shall select, where life-cycle cost-effective, ENERGY STAR and other energy efficient products when acquiring energy-using products. For product groups where ENERGY STAR (Registered Trademark) labels are not yet available, agencies shall select products that are in the upper 25 percent of energy efficiency as designated by FEMP. The Environmental Protection Agency (EPA) and DOE shall expedite the process of designating products as ENERGY STAR (Registered Trademark) and will merge their current efficiency rating procedures.

(2) GSA and the Defense Logistics Agency (DLA), with assistance from EPA and DOE, shall create clear catalogue listings that designate these products in both print and electronic formats. In addition, GSA and DLA shall undertake pilot projects from selected energy-using products to show a "second price tag", which means an accounting of the operating and purchase costs of the item, in both printed and electronic catalogues and assess the impact of providing this information on Federal purchasing decisions.

(3) Agencies shall incorporate energy efficient criteria consistent with ENERGY STAR (Registered Trademark) and other FEMP-designated energy efficiency levels into all guide specifications and project specifications developed for new construction and renovation, as well as into product specification language developed for Basic Ordering Agreements, Blanket Purchasing Agreements, Government Wide Acquisition Contracts, and all other purchasing procedures.

(4) DOE and OMB shall also explore the creation of financing agreements with private sector suppliers to provide private funding to offset higher up-front costs of efficient products. Within 9 months of the date of this order, DOE shall report back to the President's Management Council on the viability of such alternative financing options.

### **ENERGY STAR Buildings**

Agencies shall strive to meet the ENERGY STAR (Registered Trademark) Building criteria for energy performance and indoor environmental quality in their eligible facilities to the maximum extent practicable by the end of 2002. Agencies may use Energy-Savings Performance Contracts, utility energy-efficiency service contracts, or other means to conduct evaluations and make improvements to buildings in order to meet the criteria. Buildings that rank in the top 25 percent in energy efficiency relative to comparable commercial and Federal buildings will receive the ENERGY STAR (Registered Trademark) building label. Agencies shall integrate this building rating tool into their general facility audits.

### **Model Lease Provisions**

Agencies entering into leases, including the renegotiation or extension of existing leases, shall incorporate lease provisions that encourage energy and water efficiency wherever life-cycle cost-effective. Build-to-suit lease solicitations shall contain criteria encouraging sustainable design and development, energy efficiency, and verification of building performance. Agencies shall include a preference for buildings having the ENERGY STAR? Building label in their selection criteria for acquiring leased buildings. In addition, all agencies shall encourage lessors to apply for the ENERGY STAR (Registered Trademark) building label and to explore and implement projects that would reduce costs to the Federal Government, including projects carried out through the lessors' Energy-Savings Performance Contracts or utility energy-efficiency service contracts.

### **Competitive Power and Natural Gas**

Agencies shall take advantage of competitive opportunities in the electricity and natural gas markets to reduce costs and enhance services. Agencies are encouraged to aggregate demand across facilities or agencies to maximize their economic advantage.

### **Purchased Electricity from Renewable Sources**

(1) Each agency shall evaluate its current use of electricity from renewable energy sources and report this level in its annual report to the President. Based on this review, each agency should adopt policies and pursue projects that increase the use of such electricity. Agencies should include provisions for the purchase of electricity from renewable energy sources as a component of their requests for bids whenever procuring electricity. Agencies may use savings from energy efficiency projects to pay additional incremental costs of electricity from renewable energy sources:

(2) In evaluating opportunities to comply with this section, agencies should consider: my Administration's goal of tripling nonhydroelectric renewable energy capacity in the United States by 2010; the renewable portfolio standard specified in the restructuring guidelines for the State in which the facility is located; GSA's efforts to make electricity from renewable energy sources available to Federal electricity purchasers; and EPA's guidelines on crediting renewable energy power in implementation of Clean Air Act standards.

### **Incentive Awards**

Agencies shall use employee incentive programs to reward exceptional performance in implementing this order.

### **Performance Evaluations**

Agencies shall include successful implementation of provisions of this order in areas such as Energy-Savings Performance Contracts, sustainable design, energy efficient procurement, energy efficiency, water conservation, and renewable energy projects in the position descriptions and performance evaluations of agency heads, members of the agency energy team, principal program managers, heads of field offices, facility managers, energy managers, and other appropriate employees.

### **Federal Agency Energy Management Training**

Agencies shall ensure that all appropriate personnel receive training for implementing this order.

(1) DOE, DOD, and GSA shall provide relevant training or training materials for those programs that they make available to all Federal agencies relating to the energy management strategies contained in this order.

(2) The Federal Acquisition Institute and the Defense Acquisition University shall incorporate into existing procurement courses information on Federal energy management tools, including Energy Savings Performance Contracts, utility energy-efficiency service contracts, ENERGY STAR (Registered Trademark) and other energy efficient products, and life-cycle cost analysis.

(3) All agencies are encouraged to develop outreach programs that include education, training, and promotion of ENERGY STAR (Registered Trademark) and other energy-efficient products for Federal purchase card users. These programs may include promotions with billing statements, user training, catalogue awareness, and exploration of vendor data collection of purchases.

### **Showcase Facilities (New and Existing)**

Agencies shall designate exemplary new and existing facilities with significant public access and exposure as showcase facilities to highlight energy or water efficiency and renewable energy improvements.

### **DOE/EPA Federal Energy Star Program Partnerships**

On March 25, 1997, DOE and the Environmental Protection Agency (EPA) signed memoranda of understanding for Federal Energy Star Buildings Program Partnerships. Following the initial signing by DOE and EPA, agencies were contacted to solicit interest in participating in this program. The MOUs establish specific commitments for agencies, DOE, and EPA for these partnerships and include a reporting requirement to show progress on these commitments.

Agencies must report the status of their agencies in becoming involved in these partnerships and describe activities undertaken during FY 1998. A brief narrative description of the status and any progress is to be included in agency annual report submissions to DOE including the number of buildings that have become Energy Star Buildings. DOE will collect all the information received from the agencies and forward it to the EPA for their use. A separate report to EPA is not necessary once agencies submit the information to DOE.

### **Electrical Load Reduction Measures**

Describe activities taken to reduce electricity load during power emergencies. These activities are required under the President's Memorandum of May 3, 2001 on Energy Conservation at Federal Facilities.

### **Environmental Benefits and Energy Management**

Centers are encouraged to submit a voluntary report on the environmental impacts of their energy management activities. Pertinent subject areas may include, but are not limited to, the reduction of CFCs in HVAC systems, reduction of greenhouse gases resulting from conservation activities, and procedures for safely disposing obsolete fluorescent ballasts.

### **Operations and Maintenance Procedures Utilized to Increase Energy Efficiency**

Facilities management initiatives that provide energy savings as a by-product, such as predictive maintenance and testing programs, lighting system maintenance procedures, and steam distribution system inspections.

### **Energy Initiative Status**

The state within the lifecycle progression for a management activity.

### **Energy Initiative Description**

A summarized narrative explaining the activities undertaken for a specific energy or water conservation related management activity or project.

### **Facility Area Summary**

This is a summary of the sites facilities square footage by energy reporting categories.

Reporting Year  
Total Area (GSF)  
In-Grant/Lease Total Area (GSF)  
Out-Grant Total Area (GSF)  
Calculated Facility Total Area  
Energy Intensive Facility Total Area (GSF)  
Mission Variable Total Area (GSF)  
Non-Mission Variable Total Area (GSF)  
Date/Site/User

[Click here for Common Terms.](#)

[Click here for Units of Measurements.](#)

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### **Total Area (GSF)**

The actual floor area, expressed in gross square feet, of a building or group of buildings for a future reporting period. Applies only to buildings (Ledger Account 1521). Other Structures and Facilities (Ledger Account 1531) do not have reportable floor area.

Source information: GSA Form 1166.

### **In-Grant/Lease Total Area (GSF)**

The total gross square footage of facilities used but not owned by the site.

### **Out-Grant Total Area (GSF)**

The total gross square footage of facilities owned by the site but used by other organizations.

### **Calculated Facility Total Area**

The total gross square footage is automatically calculated for Mission Variable Total Area, Energy Intensive Facility Total Area and Non-Mission Variable Total Area.

For the reporting year:

Non-Mission Variable Total Area = (Total Area (GSF) + In-Grant/ Lease Total Area (GSF) – Out-Grant Total Area (GSF) – Mission Variable Total Area (GSF) – EIF Total Area (GSF))

### **Energy Intensive Facility Total Area (GSF)**

The total gross square footage of all facilities at the site that are subject to the energy efficiency improvement goals for industrial and laboratory facilities set forth in EO 13123, Section 203 (calculated by the system).

## **Mission Variable Total Area (GSF)**

The total gross square footage of all energy-intensive buildings or facilities at the site for which NASA claims exemption from the energy efficiency improvement goals for standard buildings and industrial and laboratory facilities set forth in EO 13123, Sections 202 and 203 (calculated by the system).

## **Non-Mission Variable Total Area (GSF)**

The total gross square footage of all facilities at the site that are subject to the federal energy reduction goals set forth in EO 13123, Section 202 (calculated by the system).

## **Funding Requests for Energy and Transportation Efficiency Management**

(Formerly POP Exhibit 55)

Used for identification of funds to OMB for energy efficiency management as required by Executive Order 13123.

POP Reporting Year

ESPC or UESC Negotiation/Management

Direct spending on energy efficiency

Direct spending on training

Energy Star building design/construction incremental costs

Green Power

On-site generation and renewable power generation

Other

Annual Savings Related to Efficiency

Project Estimated Annual Energy Savings (MBTU)

Project Estimated Annual Savings (\$K)

[Click here for Common Terms.](#)

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## **ESPC or UESC Negotiation/Management**

Alternative financing instruments that enable agencies to hire a private-sector energy service company (ESCO) or local utility to finance, install and operate energy-efficiency improvements in a federal facility. The agency pays the contractor using a portion of the energy cost savings that the contractor guarantees to accrue over the life of the energy efficiency improvements. These contracts allow agencies to undertake more and larger efficiency improvements than budgets might otherwise permit. Report the funding for overhead costs associated with encouraging the use of and administering ESPCs and UESCs. Do not report the total investments or awarded value of ESPCs and UESCs.

Energy Savings Performance Contracts (ESPC)

Utility Energy Service Contracts (UESC)

### **Direct spending on energy efficiency**

Means the funds requested each year for efficiency activities. This will measure your agency's cost and management of activities undertaken with direct appropriations to achieve the Executive Order's goals.

### **Direct spending on training**

Means expenditures for energy management training for your Center's/Component Facility's energy management team as well as Federal employees and on-site contractors who are energy or facility managers, operations and maintenance workers, facility design personnel, procurement and budget staff, and legal counsel.

### **Energy Star building design/construction incremental costs**

Energy Star building means a building that ranks in the top 25 percent in energy efficiency relative to comparable commercial and Federal buildings. Leadership in Energy and Environmental Design (LEED) is a green building rating system that includes standards for improving energy efficiency and environmental performance of buildings. Investments in better building design and construction typically return dividends (such as reduced operations and maintenance costs) that will save money over the life of the building, above and beyond any up front costs incurred to design and implement them (i.e., investments are life-cycle cost effective). Agencies are encouraged to incorporate Energy Star or LEED building standards into up front design concepts for new construction and/or building renovations. If you incur or anticipate incurring additional costs for incorporating these standards, report them. It is understood that, in many cases, Energy Star or LEED building design requirements can be incorporated at no additional cost.

### **Green Power**

Means electricity generated from the following renewable energy sources: solar, wind, wave, geothermal, and biomass. Thermal energy purchased from these renewable sources and incremental hydropower should also be included in green power reporting.

### **On-site generation and renewable power generation**

Means costs for installation of technologies that use renewable energy to provide light, heat, cooling, or mechanical or electrical energy for use in facilities or other activities. The term also means the use of integrated whole building designs that rely upon renewable energy resources, including passive solar design.

### **Other**

Please specify other costs.

### **Annual Savings Related to Efficiency**

type popup definition text here

### **Project Estimated Annual Energy Savings (MBTU)**

Provide estimated annual energy savings (Millions of BTUs per year) at full implementation for all direct Agency funded energy conservation projects included in the FY budget.

## **Project Estimated Annual Savings (\$K)**

Provide estimated annual energy and water cost savings (\$ Thousands per year) at full implementation for all direct Agency funded energy conservation projects included in the FY budget.

## **MV/EIF Facility Energy Consumption**

The amount of energy used each year by exempt mission variable and other energy-intensive buildings (facilities having the basic function to enclose usable space) or structures (facilities having the basic function of a research or operational activity).

Source information: NASA Form 1166.

Reporting Year

Building/Facility Number

Building/Facility Name

Facility Energy Consumption Category/Type

Actual Floor Area Quantity (GSF)

Volume Quantity (GCF)

Input Quantity (MBTU)

Output Quantity (MBTU)

Facility Exclusion Description

Date/Site/User

[Click here for Common Terms.](#)

[Click here for Units of Measurements.](#)

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### **Building/Facility Number**

The formal number designation assigned to a building, structure, or complex by the reporting site.

### **Building/Facility Name**

The formal name designation assigned to a building, structure, or complex by the reporting site.

### **Facility Energy Consumption Category/Type**

The combination of the formal designation of the facility classification (i.e. mission variable or energy-intensive) and the facility type (as defined in NPG 8570.X (Draft)) claimed for reporting purposes.

The following is the list of values for Facility Energy Consumption Type that apply to mission variable and energy intensive facilities:

Operational, Test, and Support Facility  
Wind Tunnel  
Cleanroom Facility  
Utility Distribution Facility  
Manufacturing Facility  
Refurbishment and Coating Facility  
Goldstone Deep Space Communications Complex

Return to MV/EIF Facility Energy Consumption.

### **Operational, Test, and Support Facility**

A facility that provides direct technical support to the design, development, test and evaluation, and regular mission operation activities for each NASA Strategic Enterprise. These are facilities that may have special temperature, humidity, critical air control, data collection, or power requirements. Such facilities include, but are not limited to (1) engine research and test stands; (2) space communication buildings and tracking stations; (3) data processing and interpretation facilities; (4) laboratories; (5) centrifuges; (6) environmental simulation and test facilities; (7) launch

preparation, launch, and landing facilities; and (8) flight/motion and mission simulation facilities. Facilities not covered under this definition because of their unique energy metric will be defined separately (e.g., cleanrooms).

### **Wind Tunnel**

An aerodynamic or aeropropulsion research and development facility that provides low and/or high speed conditioned gas flow for performance, controls, and other aerospace testing of components and models. For energy reporting purposes, wind tunnels that consume the major portion of all wind tunnel energy at a site for which MBTU per Standard Test metrics have been established are considered **Major Wind Tunnels**. Wind tunnels that are used infrequently or consume a small portion of all wind tunnel energy at the site are considered **Minor Wind Tunnels**.

### **Cleanroom Facility**

A facility that provides critical temperature, humidity, and air quality control in a dust-free environment. A cleanroom facility should, as a minimum, occupy 50 percent or greater of the facility's volume and shall be Class 100,000 or less. The facility provides the environment required for research, testing, integration, or assembly of flight hardware or experimentation in support of Strategic Enterprises.

### **Utility Distribution Facility**

A facility that provides and distributes chilled water, hot water, steam, electricity, or any other form of utility service for the purpose of sustaining the mission activities of multiple facilities.

### **Manufacturing Facility**

A facility that uses large amounts of industrial equipment in a well-defined process to produce multiple units of individual finished products from raw materials and pre-purchased subassemblies as required to support the missions of the individual NASA Strategic Enterprises.

### **Refurbishment and Coating Facility**

A facility used to repair or restore the original condition of multiple units of individual products as required to support the missions of the individual NASA Strategic Enterprises. This includes the replacement of worn/damaged components and the preparation required for the application of a coating system such as sandblasting and cleaning.

### **Goldstone Deep Space Communications Complex**

One of the three Deep Space Network communication complexes worldwide that support NASA's planetary and interplanetary missions. This category includes all energy-consuming facilities at the Goldstone complex.

### **Actual Floor Area Quantity (GSF)**

The measured floor area, expressed in gross square feet, of a building or group of buildings. Applies only to buildings (Ledger Account 1521). Other Structures and Facilities (Ledger Account 1531) do not have reportable floor area.

### **Volume Quantity (GCF)**

The measured volume, expressed in gross cubic feet (GCF), of a structure or facility.

### **Input Quantity (MBTU)**

The measured amount of energy or fuel entering a utility system, expressed in millions of British Thermal Units (MBTU).

### **Output Quantity (MBTU)**

The measured amount of energy that is produced from the input, expressed in millions of British Thermal Units (MBTU).

### **Facility Exclusion Description**

A concise statement that explains why the facility is considered exempt from the Federal energy reduction requirements of Section 542 of the National Energy Conservation Policy Act (42 U.S.C. 8252). Justifications are generally based on energy-intensity or unique operating requirements. Choose the most appropriate statement from the list of values.

### **Other Scorecard Data**

Data required for the Federal Agency Scorecard not reported elsewhere in NETS.

Reporting Year

Date/Site/User

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## **POP Reporting Year**

This is the calendar or fiscal year to which the reported information applies, not necessarily the year in which you are submitting the report.

The POP Reporting Year will be automatically set based on the selected reporting type. Since NASA Centers provide input to the POP in the year before the NASA budget is submitted to OMB and the Congress, NETS uses the following definitions that do not coincide with the OMB definitions.

PY Prior Year (PY) - The last completed fiscal year (FY) for which actual data exists.

CY Current Year (CY) – The current fiscal year (FY) in which the POP exhibit is being prepared.

BY-1 Budget Year minus one (BY-1) - The fiscal year (FY) between the current year (CY) and the budget year (BY).

BY The Budget Year (BY) – The fiscal year (FY) for which the POP is being prepared.

## **Project \***

Organized implementation of energy or water conservation measures with a scheduled beginning and ending.

Reporting Year

Date/Site/User

Project Type

Project Name

Project Status

Project Cost (\$K)

Annual Water Savings Quantity (KGAL)

Annual Project Savings Amount (\$K)

Annual Energy Savings Quantity (MBTU)

System Type

PV System Size (KW)

Solar System Collector Area (SF)

Project Description

Project Benefit Description

\* = Outstanding documents

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## **Project Type**

A formal designation assigned to the functional grouping of activities that comprise a project.

Listed below are the list of values for Energy Project Type:

204. Solar and Other Renewable Energy Project  
204 (a). Million Solar Roofs Project  
205. Fuel Substitution Project  
207. Water Conservation Project  
403. Energy Efficiency Improvement Project  
403 (d). Sustainable Building Design  
403 (f). Industrial Efficiency Improvement Project  
Demand Management/Utility Cost Reduction Project  
Metering/Remote Monitoring/Data Acquisition Project  
Other Project

Please refer to Execute Order 13123 for further explanation.

[Click here to return to Project \\*](#).

## **Solar and Other Renewable Energy Project**

Each agency shall strive to expand the use of renewable energy within its facilities and in its activities by implementing renewable energy projects and by purchasing electricity from renewable energy sources. In support of the Million Solar Roofs initiative, the Federal Government shall strive to install 2,000 solar energy systems at Federal facilities by the end of 2000, and 20,000 solar energy systems at Federal facilities by 2010.

## **Million Solar Roofs Project**

Project Solar Type – Rename "System Type" – The type of solar energy collection system that corresponds to one of the following designated Million Solar Roofs project categories:

- Photovoltaic (PV) – A system that uses solar cells to convert sunlight directly to electricity.
- Solar Water Heating – A system that uses solar collectors to heat domestic hot water.
- Solar Pool Heating – A system that uses solar collectors to heat swimming pool water.
- Solar Space Heating – A system that uses solar collectors to heat an indoor environmental (includes transpired collector "solar walls").

Project Solar Size – Rename "PV System Size (kW)" – The PV system's rated energy output measured in kilowatts (kW). PV system size must be at least 2.0 kW for non-residential systems. This field is active only when System Type = Photovoltaic (PV).

Project Solar Grid – Rename "Solar System Collector Area (SF)" – The total area measured in square feet (SF) of the system components that absorb useful heat from sunlight. This field is active only when System Type = Solar Water Heating, Solar Pool Heating, or Solar Space Heating.

- For Solar Water Heating, solar system collector area must be at least 40 square feet for non-residential systems.
- For Solar Pool Heating, solar system collector area must be at least 400 square feet for non-residential systems.
- For Solar Space Heating, solar system collector area must be at least 100 square feet for all systems.

### **Fuel Substitution Project**

Through life-cycle cost-effective measures, each agency shall reduce the use of petroleum within its facilities. Agencies may accomplish this reduction by switching to a less greenhouse gas-intensive, nonpetroleum energy source, such as natural gas or renewable energy sources; by eliminating unnecessary fuel use; or by other appropriate methods. Where alternative fuels are not practical or life-cycle cost-effective, agencies shall strive to improve the efficiency of their facilities.

### **Water Conservation Project**

Through life-cycle cost-effective measures, agencies shall reduce water consumption and associated energy use in their facilities to reach the goals set under section 503(f) of this order. Where possible, water cost savings and associated energy cost savings shall be included in Energy Savings-Performance Contracts and other financing mechanisms.

### **Energy Efficiency Improvement Project**

Agencies shall use a variety of energy management strategies and tools, where life-cycle cost-effective, to meet the goals of this order. An agency's use of these strategies and tools shall be taken into account in assessing the agency's progress and formulating its score card.

### **Sustainable Building Design**

DOD and GSA, in consultation with DOE and EPA, shall develop sustainable design principles. Agencies shall apply such principles to the siting, design, and construction of new facilities. Agencies shall optimize life-cycle costs, pollution, and other environmental and energy costs associated with the construction, life-cycle operation, and decommissioning of the facility. Agencies shall consider using Energy-Savings Performance Contracts or utility energy-efficiency service contracts to aid them in constructing sustainably designed buildings.

### **Industrial Efficiency Improvement Project**

Agencies shall explore efficiency opportunities in industrial facilities for steam systems, boiler operation, air compressor systems, industrial processes, and fuel switching, including cogeneration and other efficiency and renewable energy technologies.

### **Demand Management/Utility Cost Reduction Project**

Projects that reduce energy costs that do not necessarily save energy, such as electrical demand reduction, standby generation, thermal energy storage system projects.

### **Metering/Remote Monitoring/Data Acquisition Project**

Projects to install measurement equipment and systems to help manage energy use for a building or site.

### **Other Project**

Any energy-related project that does not fit any of the other definitions in this category.

### **Project Name**

The formal designation or title assigned to a specific project.

### **Project Status**

The state within the lifecycle indicating the progression of project activities.

### **Project Cost (\$K)**

The total cost, expressed in thousands of US dollars (\$K), spent to complete a project.

### **Annual Water Savings Quantity (KGAL)**

The sum of all water savings, expressed in thousands of gallons for the reporting year to be realized from the implementation of the project.

### **Annual Project Savings Amount (\$K)**

The savings, expressed in thousands of US dollars (\$K), for the reporting year to be realized from the implementation of the project.

### **Annual Energy Savings Quantity (MBTU)**

The sum of all energy savings, expressed in millions of British Thermal Units (MBTU), for the reporting year to be realized from the implementation of the project.

### **System Type**

The type of solar energy system installed by the Million Solar Roofs (MSF) project.

Only applies to:

Project Type = 204(a). Million Solar Roofs Project

### **PV System Size (KW)**

The peak power output rating of the photovoltaic (PV) Million Solar Roof (MSF) solar energy system measured in kilowatts (KW).

### **Solar System Collector Area (SF)**

The total surface area of the active solar energy collection components of the Million Solar Roofs (MSF) project.

Only applies to:

Project Type = 204(a). Million Solar Roofs Project

### **Project Description**

A summarized narrative highlighting the major activities comprising a project.

### **Project Benefit Description**

A summarized narrative identifying the quantitative and qualitative advantage of implementing a specific project.

### **Quarterly Energy Consumption**

The total quarterly site energy consumption and cost by energy type. If the Energy Type is 'Water', then you may either enter each quarter or the annual amount in the fourth quarter.

Reporting Year

Reporting Quarter

Reporting Category

Quarterly Energy Type

Qtrly Energy Consumption

Quarterly Energy Expenditure (\$K)

Unit Cost

Actual Quarterly Energy Consumption

Actual Quarterly Energy Expenditure (\$K)

Percent Renewable (%)

Date/Site/User

Conversion Factors for Federal Energy Management Reporting

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### **Reporting Quarter**

An abbreviation indicating the segment of the calendar year that corresponds to a quarterly grouping.

### **Reporting Category**

The designation that identifies the category of energy consumption being reported (i.e., Energy Intensive Facilities (EIF), Mission Variable (MV), Non-Mission Variable (NMV), Vehicles and Other Equipment (VOE) or Water.

### **Quarterly Energy Type**

The designation for the type of fuel or utility service used as the energy supply.

### **Qtrly Energy Consumption**

The total usage of a specific energy type during the three month period being reported.

### **Quarterly Energy Expenditure (\$K)**

The cost expressed in thousands of US dollars (\$K) with one decimal place of precision (i.e., \$1.1K), that was spent for energy during the during the three month period being reported.

### **Unit Cost**

The cost in dollars of each unit of energy. This figure is automatically calculated based on the Quarterly Energy Consumption and the Quarterly Energy Expenditure.

### **Actual Quarterly Energy Consumption**

The total quarterly site energy consumption for an energy type (including both conventional and renewable energy portions).

Note: This field is activated only for Sites that are purchasing energy from new renewable sources (as defined in DOE FEMP's EO 13123 implementing guidance) through "green power" contracts or natural gas supplies with a landfill methane component.

### **Actual Quarterly Energy Expenditure (\$K)**

The total cost expressed in thousands of US dollars (\$K) with one decimal place of precision (i.e., \$1.1K), that was spent for energy (including both the conventional and renewable energy portions) during the during the three month period being reported.

Note: This field is activated only for Sites that are purchasing energy from new renewable sources (as defined in DOE FEMP's EO 13123 implementing guidance) through "green power" contracts or natural gas supplies with a landfill methane component.

### **Percent Renewable (%)**

The portion of the Actual Quarterly Energy Consumption supplied from a renewable energy source.

Note: This field is activated only for Sites that are purchasing energy from new renewable sources (as defined in DOE FEMP's EO 13123 implementing guidance) through "green power" contracts or natural gas supplies with a landfill methane component.

## Conversion Factors for Federal Energy Management Reporting

The Energy sources and fuels typically used in NASA facilities, vehicles, and equipment can be defined by common units of energy to provide a means for comparison.

<u>Energy or Fuel Type</u>	<u>DOE Reporting Units</u>	<u>BTUs per Reporting Unit</u>
<b>Buildings/Facilities</b>		
<b>Excluded Buildings/Industrial</b>		
Electricity	Megawatt Hour (MWH)	3,412,000
Fuel Oil	1,000 Gallons	138,700,000
Natural Gas	1,000 Cubic Feet	1,031,000
LPG/Propane	1,000 Gallons	95,500,000
Coal	Short Ton	24,580,000
Purchased Steam	Billion Btu (BBtu)	1,000,000,000
Other	Billion Btu (BBtu)	1,000,000,000
<b>Vehicles/Equipment</b>		
Auto Gas*	1,000 Gallons	125,000,000
Diesel and Petroleum Distillates	1,000 Gallons	138,700,000
LPG/Propane*	1,000 Gallons	95,500,000
Aviation Gas	1,000 Gallons	125,000,000
Jet Fuel	1,000 Gallons	130,000,000
Navy Special*	1,000 Gallons	138,700,000
Other*	Billion Btu (BBtu)	1,000,000,000

\* Note: The types that are grayed out and marked with an asterisk are no longer active in NETS (as of April, 2004). The historical data is available in NETS under the 'Reports' area.

## Rebates

A return of funds or other incentives provided by a utility company to encourage project implementation.

Reporting Year

Annual Energy Savings from Rebate and Incentive Projects (MBTU)

Utility Rebates and Incentives Anticipated (\$K)

Cost of Projects Eligible for Utility Rebates and Incentives (\$K)

Date/Site/User

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### **Annual Energy Savings from Rebate and Incentive Projects (MBTU)**

For Budget POP, the projected energy savings, expressed in millions of British Thermal Units (MBTU), from all projects that will receive utility incentives (rebates) when fully implemented. At end of Fiscal Year, revise estimated amounts for current year to reflect actual amounts saved.

### **Utility Rebates and Incentives Anticipated (\$K)**

For Budget POP, the projected value, expressed in thousands of US dollars (\$K), of utility incentives (rebates) anticipated to be received during the FY as a result of implementing energy and water conservation projects. At end of Fiscal Year, revise estimated amounts for current year to reflect actual amounts received.

### **Cost of Projects Eligible for Utility Rebates and Incentives (\$K)**

For Budget POP, the total cost, expressed in thousands of US dollars (\$K), of energy and water conservation projects that will receive utility incentives (rebates) planned to be awarded in the FY. At end of Fiscal Year, revise estimated amounts for current year to reflect actual costs.

### **Water Conservation**

Program information and data required to determine the status of the Center's/Component Facility's progress towards meeting the water conservation goals of Executive Order 13123.

Reporting Year

Approved Water Conservation Plan

Approved Water Conservation Plan Description

Best Management Practices

Implemented

Date/Site/User

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### **Approved Water Conservation Plan**

Select the appropriate status from the drop-down list indicating the progression of the Water Conservation Plan activity.

### **Approved Water Conservation Plan Description**

**Water Conservation Initiative** - Describe status of actions to reduce potable water usage by implementing life cycle cost-effective water efficiency measures as required by EO 13123. Each NASA Installation must adopt a water management plan and implement not less than 4 of the following Water Efficiency Improvement Best Management Practices (BMP):

- BMP # 1 - Public Information and Education Programs
- BMP # 2 - Distribution System Audits, Leak Detection & Repair
- BMP # 3 - Water Efficient Landscape
- BMP # 4 - Toilets and Urinals
- BMP # 5 - Faucets and Showerheads
- BMP # 6 - Boiler/Steam Systems
- BMP # 7 - Single-Pass Cooling Systems
- BMP # 8 - Cooling Tower Systems
- BMP # 9 - Miscellaneous High Water-Using Processes
- BMP #10 - Water Reuse and Recycling

BMPs are considered implemented at a NASA Installation when all the following criteria are met:

- a. Water management plans have been developed or revised and incorporated into existing facility planning processes and operating plans. Center water management plans should be incorporated into the Center Energy Efficiency and Water Conservation 5-Year Plans required by NPG 8570.1.
- b. Applicable O&M options have been put into practice, and retrofit/replacement options have been reviewed within the last 2 years and those appropriate for implementation have been identified.
- c. Applicable cost-effective retrofit/replacement options have been implemented.

### **Best Management Practices**

Ten specific actions recommended by DOE FEMP and defined in NPG 8570.1 to reduce water consumption and promote conservation including:

- BMP # 1 - Public Information and Education Programs
- BMP # 2 - Distribution System Audits, Leak Detection & Repair
- BMP # 3 - Water Efficient Landscape
- BMP # 4 - Toilets and Urinals
- BMP # 5 - Faucets and Showerheads
- BMP # 6 - Boiler/Steam Systems
- BMP # 7 - Single-Pass Cooling Systems
- BMP # 8 - Cooling Tower Systems
- BMP # 9 - Miscellaneous High Water-Using Processes
- BMP #10 - Water Reuse and Recycling

### **Implemented**

An indicator identifying which of the 10 Water Best Management Practices have been fully adopted at the Site.

BMPs are considered implemented at a NASA Installation when all the following criteria are met:

- a. Water management plans have been developed or revised and incorporated into existing facility planning processes and operating plans. Center water management plans should be incorporated into the Center Energy Efficiency and Water Conservation 5-Year Plans required by NPG 8570.1.

- b. Applicable O&M options have been put into practice, and retrofit/replacement options have been reviewed within the last 2 years and those appropriate for implementation have been identified.
- c. Applicable cost-effective retrofit/replacement options have been implemented.



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