Y-12 SITE SUSTAINABILITY PLAN

FY2014

Sustainability: "…to create and maintain conditions, under which humans and nature can exist in productive harmony…"

—EXECUTIVE ORDER 13514

DISCLAIMER

Y-12 NATIONAL SECURITY COMPLEX

FY 2014

SITE SUSTAINABILITY PLAN

DECEMBER 2013

Prepared by Y-12 National Security Complex
P.O. Box 2009, Oak Ridge, Tennessee 37831-8169

Managed by Babcock & Wilcox Technical Services Y-12, LLC for the U.S. Department of Energy under contract DE-AC05-00OR22800

12/12/13

Date

Steven C. Erhart, Manager
NNSA Production Office

Charles G. Spencer, President and General Manager
B&W Y-12

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ACRONYMS, ABBREVIATIONS, AND INITIALISMS

AFV	alternative fuel vehicles
AVID	Accelerated Vendor Inventory Delivery
BIM	Building Information Management
BWC	Best Workplaces for Commuters
C&D	construction and demolition
CAIS	Condition Assessment Information System
CEDR	Consolidated Energy and Data Report
CRT	cathode-ray tube
CTS	Consolidated Tracking System
DCRMC	Desktop Computing Resource Management Council
DOE	U.S. Department of Energy
ECM	Energy Conservation Measure
EISA	Energy Independence and Securities Act
EMIP	Energy Modernization Implementation Program
EPA	Environmental Protection Agency
EPEAT	Electronic Product Environmental Assessment Tool
ESPC	Energy Savings Performance Contract
ETTP	East Tennessee Technology Park
FAST	Fleet Automotive Statistics Tool
FEC	Federal Electronics Challenge
FEMP	Federal Energy Management Program
FIMS	Facility Information Management System
FTE	full-time equivalent
GGE	gasoline gallon equivalent
GHG	greenhouse gas
GSF	gross square feet
HMIS	Hazardous Materials Information System
HPSB	high performance and sustainable building
HVAC	heating, ventilating, and air conditioning
ILA	industrial, landscaping, and agricultural
IT	Information Technology
LEED	Leadership in Energy and Environmental Design
LED	light-emitting diode
M&V	Measurement and Verification
NC	New Construction
NNSA	National Nuclear Security Administration
NPO	NNSA Production Office
O&M	operations and maintenance
ORNL	Oak Ridge National Laboratory
ORR	Oak Ridge Reservation
P2	Pollution Prevention
PLA	polylactic acid
PSF	production support facility
PUE	power utilization effectiveness
REC	Renewable Energy Certificates
RFID	Radio Frequency Identification
SIR	savings to investment ratio
SSP	Site Sustainability Plan
SSPP	Strategic Sustainability Performance Plan
T&D	transmission and distribution
TVA	Tennessee Valley Authority
TWRA	Tennessee Wildlife Resources Agency
UMS	Utility Management System
UPF	Uranium Processing Facility
VAWT	vertical-axis wind turbine
WPMW	Wireless Paperless Mobile Worker

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SITE MANAGEMENT VISION

The accomplishments to date and the long-range planning of the Y-12 Energy Management and Sustainability and Stewardship programs support the U.S. Department of Energy (DOE) and the National Nuclear Security Administration (NNSA) vision for a commitment to energy efficiency and sustainability and to achievement of the Guiding Principles. Specifically, the Y-12 vision is to support the Environment, Safety and Health Policy and the DOE Strategic Sustainability Performance Plan (SSPP), while promoting overall sustainability and reduction of greenhouse gas (GHG) emissions. The mission of the Y-12 Energy Management program is to incorporate energy-efficient technologies site-wide and to position Y-12 to meet NNSA energy requirement needs through 2025 and beyond.

MAJOR PLANNING ASSUMPTION AND ISSUES (INCLUDING FUNDING STRATEGIES)

Y-12 is committed to achieving the sustainable energy and transportation goals established in Executive Orders 13423 and 13514. Although complete accomplishment of the present goals would exceed existing funding levels, Y-12 will continue to execute projects as funding becomes available or as they can be accomplished incrementally within current funding profiles. All efforts will be made to integrate energy and sustainability initiatives with ongoing site mission objectives.

Dedicated funding for energy and water projects is provided via the Energy Savings Performance Contract (ESPC) mechanism. ESPC delivery order #2 is in the second period of performance at Y-12; delivery order #3 was awarded September 2013. Efforts from delivery order #2 have greatly contributed toward both energy reduction and efficiency gains for the projects implemented. Delivery order #3 will be implemented from first quarter FY 2014–fourth quarter FY 2016 and will result in an estimated annual energy and water cost savings of $2,874,696 and estimated energy-related Operations and Maintenance (O&M) annual energy and water cost savings of $2,381,304. The site will continue to work with NNSA for successful accomplishment of these efforts.

During FY 2013, the Security Protective Force, including the Central Training Facility, which is located approximately 5 miles west of the Y-12 site, was transitioned into the existing management and operating contract at Y-12. The facilities, employees, and fleet vehicles resulting from this change were combined with the Y-12 inventory. The addition to the Facility Information Management System (FIMS), the Fleet Automotive Statistics Tool, and other data reporting systems has had an impact on previous goal reporting for the site. However, it is not expected that the additions will have a negative impact on the reporting. Where pertinent, narrative is included in each of the various sections regarding the change.

SUCCESSES AND CHALLENGES

Y-12 has already met nine of the SSPP goals, and is on track to complete an additional eight goals. The site will continue to pursue compliance

with the remaining goals, although it is not anticipated that these will be met in total due to funding constraints. Table ES.1 gives a comprehensive overview of Y-12's performance status and planned actions.

Some of the ongoing Y-12 initiatives that have had a significant impact on the sustainability at the site and have helped reduce energy and water intensity during the past few years include:

- ESPC projects,
- pollution prevention and recycle/reuse programs, and
- site-wide consolidation and transformation of facilities.

Other initiatives during FY 2013 that demonstrated significant progress toward the goals are:

- Installation of Btu meters on cooling towers to measure and reduce tower water loads;
- Energy reduction from steam pressure reduction on distribution system (165 psi to 135 psi);
- Lighting upgrades in Production facilities;
- National Standard of Excellence recognition from the Best Workplaces for Commuters;
- Implementation of more than 90 pollution prevention initiatives, which eliminated more than 11.4 million pounds of waste, creating a projected cost avoidance of more than $1.5M;
- Y-12 employee participation in "Smart Trips" increased by over 50% in FY 2013; and
- Participation in the completion of the City of Oak Ridge's application for the Tennessee Valley Authority (TVA) Sustainable Communities Certification Program. In September 2013, TVA designated Oak Ridge as a Platinum Level Sustainable Community in the new Valley Sustainable Communities Program.

Y-12 continues to focus on employee awareness related to Pollution Prevention (P2) and individual contributions to site sustainability performance. At the Y-12 Earth Day celebration, the P2 booth focused on individual behaviors that support sustainability efforts including sustainable acquisition products for the office environment; the Y-12 Energy Management booth highlighted energy conservation activities and included a pervious pavement display; the Tennessee Wildlife Resources Agency booth featured information concerning wildlife found on the DOE Oak Ridge Reservation; and the Uranium Processing Facility (UPF) project booth highlighted the sustainable design features of the facility. Various awareness materials were given to each employee to reinforce Y-12's overall message of reducing, reusing, recycling, and conserving energy and water to support the pollution prevention philosophy (Fig. ES.1).

Fig. ES.1. The Tennessee Wildlife Resources Agency booth featured information concerning wildlife.

For the tenth consecutive year, the Y-12 Complex has been recognized by NNSA for award winning activities. Y-12 received 2013 NNSA Sustainability Best In Class Awards for the following four activities: "Making Change Happen at Y-12" in the Change Agent Category, "Y-12's Jack Case Center Accelerates Energy Savings for High Performance" in the Green Building Category, "Sustainability in Action at Y-12" in the DOE Sustain-ABLE Campus Category and "Y-12's Sustainability Program Improvements Engage and Enlighten Employees" in the Sustainable Communications Category. NNSA Environmental Stewardship Award Certificates were received for "Y-12 Fleet Reduction and Taxi Implementation" in the Fleet Category and "Y-12 Landfill Diversion – Don't Throw it all Away" in the Waste Reduction and Pollution Prevention Category. In FY 2013, Y-12 joined the Federal Green Challenge Program.

During FY 2014, the site will continue to focus on employee awareness and incorporation of sustainability into maintenance efforts and modernization planning. This focus will enable further site progress toward meeting the goals.

NET-ZERO-ENERGY FACILITIES

In accordance with Executive Order 13514, sites shall, "beginning in 2020 and thereafter, ensure that all new Federal buildings that enter the planning process are designed to achieve zero-net-energy by 2030." Y-12 has identified several locations as possible net-zero-energy buildings. However, due to the low cost of electricity in the southeast and the expense and installation cost of renewable projects, the effort is not economically feasible at this time. In regard to the 2020–2030 horizons, several facilities are in the early planning stages and are targeted for participation. The site will include this initiative in the planning documents and will evaluate the cost effectiveness of including renewable energy to off-set energy consumption. As a site, Y-12 is aware of the requirement and is hopeful that implementation will be more feasible in the near future. New facilities identified for planning during the 2020–2030 timeframe include the following projects:

- Maintenance complex
- Non-material access area storage
- Shipping/Receiving warehouse
- Consolidated Manufacturing Complex

Table ES.1. Summary table of goal targets

SSPP Goal	DOE Goal	Performance Status	Planned Actions and Contribution	Risk of Non-attainment
Goal 1: GHG Reduction and Comprehensive GHG Inventory				
1.1	28% Scope 1 & 2 GHG reduction by FY 2020 from an FY 2008 baseline	On track – Scope 1 & 2 emissions have decreased by 39.1%. It is uncertain if this goal will be sustainable during UPF construction.	Continue to identify methods for reduction of GHG; further emphasize energy reductions.	Medium
1.2	13% Scope 3 GHG reduction by FY 2020 from an FY 2008 baseline	On track – Site Scope 3 emissions have decreased by 11.5%. It is uncertain if this goal will be sustainable during UPF construction.	Y-12 will continue to promote alternative commuting methods.	Medium
GOAL 2: Buildings, ESPC Initiative Schedule, and Regional & Local Planning				
2.1	30% energy intensity reduction by FY 2015 from an FY 2003 baseline	Goal has been met – The site has achieved a 34% reduction from the 2003 baseline.	Continue implementation of planned energy reduction initiatives, including delivery order #3 ESPC.	
2.2	Energy Independence and Securities Act (EISA) Section 432 energy and water evaluations	Goal has been met – Y-12 completed all EISA-covered assessments during FY 2013.	Assessments will continue to include 25% of EISA-covered facilities for second assessment cycle.	

SSPP Goal	DOE Goal	Performance Status	Planned Actions and Contribution	Risk of Non-attainment
2.3	Individual buildings or processes metering for 90% of electricity (by October 1, 2012); for 90% of steam, natural gas, and chilled water (by October 1, 2015)	On track – Currently 64% of appropriate buildings and 82% of electricity is metered; 100% of natural gas; 13.3% of steam; 32% of chilled water; and 18% of potable water appropriate buildings are metered.	Continue procurement and installation of metering as funding is allocated in accordance with Sect. 2.3 Metering Plan and Appendix A Metering Spreadsheet.	Electricity: Low Steam: Medium Natural Gas: Low Chilled Water: Medium
2.4	Cool roofs, unless uneconomical, for roof replacements unless project already has CD-2 approval; new roofs must have thermal resistance of at least R-30	On track – Investments in roofing have increased the implementation of cool roof technology at the site.	Future roofing projects will continue to use cool roofs where practical.	Low
2.5	15% of existing buildings larger than 5,000 gross square feet (GSF) are compliant with the Guiding Principles of high performance and sustainable building (HPSB) by FY 2015	At Risk – Y-12 is yellow for GSF, with 12% complete, but still red for building count with 2% complete.	Y-12 will continue to implement initiatives to meet HPSB compliance as funding and resources allow.	High
2.6	All new construction, major renovations, and alterations of buildings greater than 5,000 GSF must comply with the Guiding Principles	On track – The UPF project is seeking Leadership in Energy and Environmental Design (LEED) Silver certification.	The UPF project team will continue efforts toward LEED certification.	Low
Goal 3: Fleet Management				
3.1	10% annual increase in fleet alternative fuel consumption by FY 2015 relative to an FY 2005 baseline	Goal has been met – Y-12 has achieved a 275.5% alternative increase in alternative fuel consumption within 7 years.	Additional measures are being evaluated for continued improvement beyond the goals.	
3.2	2% annual reduction in fleet petroleum consumption by FY 2020 relative to an FY 2005 baseline	Goal has been met – Y-12 has achieved the petroleum reduction goal with a 55.1% reduction within 7 years.	Additional measures are being evaluated for continued improvement beyond the goals.	
3.3	100% of light-duty vehicle purchases must consist of alternative fuel vehicles (AFVs) by FY 2015 and thereafter (75% FY 2000–2015)	Goal has been met – Y-12 purchases consisted of 98% AFVs.	Future vehicle purchases will include consideration for AFVs.	
3.4	Reduce fleet inventory of non-mission-critical vehicles by 35% by FY 2013 relative to an FY 2005 baseline	On Track – NNSA established a 35% reduction target complex-wide.	Continue evaluating mission need and utilization standards to reassign or remove vehicles from fleet.	Low
Goal 4: Water Use Efficiency and Management				
4.1	26% water intensity reduction by FY 2020 from an FY 2007 baseline	Goal has been met – The site has achieved a 47.1% reduction from the baseline.	Water conservation measures will continue to be implemented as practicable in support of the HPSB initiative.	

SSPP Goal	DOE Goal	Performance Status	Planned Actions and Contribution	Risk of Non-attainment
4.2	20% water consumption reduction of industrial, landscaping, and agricultural (ILA) water by FY 2020 from an FY 2010 baseline	No ILA use at Y-12.	All water used at Y-12 is potable water and included in the potable water category.	N/A
GOAL 5: Pollution Prevention and Waste Reduction				
5.1	Divert at least 50% of non-hazardous solid waste, excluding construction and demolition debris, by FY 2015	**Goal has been met** – Over 53% of non-hazardous waste diverted from landfill.	At least one new recycle material stream is added to the recycling program each fiscal year to further increase the diversion rate.	
5.2	Divert at least 50% of construction and demolition materials and debris by FY 2015	**Goal has been met** – Over 71% of construction and demolition (C&D) waste diverted from landfill.	Systematic disposition evaluation method will continue to be used for C&D materials to ensure maximum waste diversion is achieved.	
Goal 6: Sustainable Acquisition				
6.1	Procurements meet requirements by including necessary provision and clauses (Sustainable Procurements/ Bio-based Procurements)	**Goal has been met** – The sustainable acquisition clause 952.223-78 was incorporated into Y-12 procurement clauses in FY 2011. The terms and conditions were revised in 2012 to include Federal Acquisition Regulation clause 52.223-15.	Y-12 will incorporate additional clauses as requested and will continue to evaluate sustainable products for use at the site.	
Goal 7: Electronic Stewardship and Data Centers				
7.1	All data centers are metered to measure a monthly power utilization effectiveness (PUE) (100% by FY 2015)	**At Risk** – Electric meter installations were planned for 2012 and 2013 but have been postponed due to funding.	The primary data centers are being consolidated. Efforts will consider additional metering to ensure PUE is effectively measured.	High
7.2	Maximum annual weighted Medium average PUE of 1.4 by FY 2015	**At Risk** – The PUE is currently estimated at lower than 1.4. However, this value is based solely on electricity usage and does not account for energy intensity.	Chilled water and electrical metering are planned for Buildings 9103/9117 if funding allows. This data will allow the measurement of the PUE.	High
7.3	Electronic stewardship – 100% of eligible personal computers, laptops, and monitors with power management actively implemented and in use by FY 2012	**At Risk** – Y-12 has implemented power management to eligible CPUs and laptops; power management features are enabled on all monitors not deemed mission critical.	100% implementation is not currently feasible with existing security network features. The site will continue active implementation of power management of computing devices while maintaining security network features.	High
Goal 8: Renewable Energy				
8.1	20% of annual electricity consumption from renewable sources by 2020	**On track** – Y-12 purchased 8% of site electricity in Green-e certified Renewable Energy Certificates (RECs).	Based on DOE decision regarding RECs to satisfy this goal, Y-12 will continue to purchase.	Without RECs: High With RECs: Low
Goal 9: Climate Change Adaptation				
9.1	Climate Change Adaptation – Address DOE Climate Adaptation Plan goals	**On track** – Y-12 is partnering with regional and local entities to exchange information and gain perspective.	Y-12 will continue to partner with Oak Ridge National Laboratory (ORNL), TVA, and others to remain engaged in this effort.	

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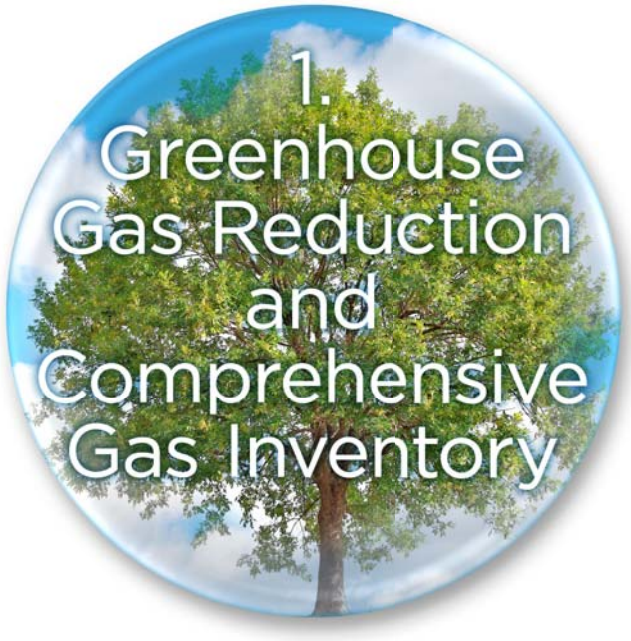

1.1 SCOPE 1 & 2 GREENHOUSE GAS

Y-12 reduced Scope 1 & 2 emissions by 39.1% in FY 2013 compared to the 2008 baseline, meeting the Scope 1 & 2 reduction goals, primarily due to decreased Scope 1 emissions from steam generation, and decreased Scope 2 emissions from energy efficiency projects (Fig. 1.1). The Y-12 Complex seeks to support the greenhouse gas (GHG) reduction targets to the fullest extent possible. The overall goal of 28% reduction (from an FY 2008 baseline) by FY 2020 has been established by the U.S. Department of Energy (DOE) for Scope 1 & 2 emissions.

PERFORMANCE STATUS

Table 1.1 presents the FY 2013 Scope 1 & 2 GHG emissions compared to the FY 2008 baseline. With an FY 2013 reduction of more than 39% compared to baseline, the Scope 1 emissions have surpassed the 28% reduction target. Scope 2 Purchased Electricity was reduced 21% from baseline levels due to incremental reductions in energy intensity and electricity consumption (discussed in Sect. 2), and a reduced eGRID emission factor for regional power sources. Future reductions in purchased electricity may be at risk due to the potential peak in energy intensity with the addition of the Uranium Processing Facility (UPF), minimal renewable energy projects, limited funding for high performance and sustainable building (HPSB) initiatives, and uncertain funding for demolition of antiquated production facilities (requiring ongoing energy initiatives to maintain buildings in cold stand-down status awaiting final demolition).

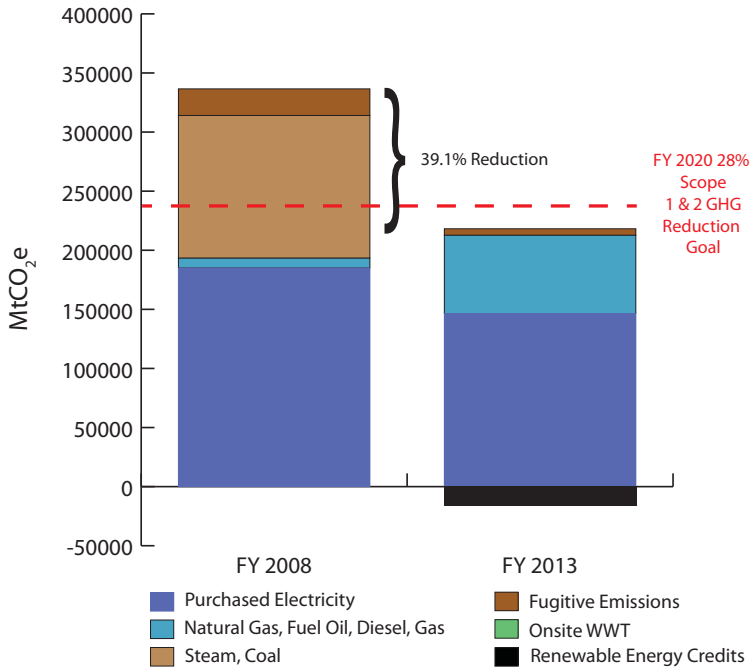

Fig. 1.1. Y-12 Reduced Scope 1&2 emissions by 39% in FY 2013.

Table 1.1. Y-12 FY 2013 Scope 1 & 2 GHG emissions compared to baseline

Scope	GHG Emission Source	($MTCO_2e$/yr)		
		FY 2008	% Change	FY 2013
1	Steam (Coal, NG, Fuel Oil)	129,021	-49%	66,143
1	Fugitive Emissions (SF6, Vertrel, other)	22,542	-75%	5,579
1	On-site WWT	6.9	19%	8.2
1	Fleet Fuels (Gas, E-85, Diesel)	1,063	-37%	665
1	**Total Scope 1**	**152,633**	**-53%**	**72,396**
2	Renewable Energy Credit (REC)			(13,497)
2	Purchased Electricity	184,995	-21%	146,481
1+2	Total Combined Scope 1 & 2 GHG	337,628	-39.1%	205,380

The following changes and major initiatives contributed significantly to Scope 1 & 2 GHG emissions:

- Scope 1 GHG emissions from steam generation decreased dramatically (49%) due to modernization of the steam plant, conversion from coal to natural gas, and continued building demolitions and efficiency improvements that reduced requirements for steam generation (discussed in Sect. 2). Coal use ceased in FY 2011.
- Scope 2 GHG emissions from purchased electricity decreased significantly (21% vs. baseline) due to numerous successful energy reduction initiatives and HPSB improvements completed in FY 2013 (described in Sect. 2).
- The decrease was also due to changes to the emission factor assigned within the Consolidated Energy Data Report (CEDR) to estimate CO_2 emissions from regional electrical utilities. (The emission factor for purchased electricity was reduced from 0.689 $MTCO_2e$/MWh in FY 2008 to 0.6191 in FY 2011 through FY 2013.)
- Fugitive emissions decreased 75% in FY 2013 versus the baseline primarily due to improved recycling of Vertrel, reduced production demands, and improved capture of Vertrel disposed as waste rather than being emitted. Y-12 is exploring the potential for use of a non-GHG emitting replacement for the Vertrel-based system that is planned for implementation in the future UPF (discussed in the section on Projected Performance). No SF-6 emissions occurred in FY 2013.

No changes were made to the 2008 baseline for Scope 1 & 2 GHGs. The following methods for gathering baseline and FY 2013 data were implemented to develop the data included in the CEDR:

- Data on electrical power use and natural gas consumption is gathered from meter monitoring activities. This energy consumption information for facilities and fully serviced leased facilities is input into the CEDR quarterly.
- Fleet fuel usage is compiled by Y-12 and security vehicles from Fleet Automotive Statistics Tool (FAST) database entries.
- For on-site wastewater treatment, the population of personnel in buildings served by the on-site industrial wastewater treatment plant and septic system was gathered from site personnel and staffing data information sources.
- Mixed refrigerant and F-Gas FY 2012 data were gathered to enable use of the Simplified Material Balance Approach. Material balance data were obtained from Hazardous Materials Information System (HMIS) inventory and purchasing records. Equipment capacity data was also entered where available. FY 2008 baseline and 2011 data reported in previous CEDR reports were re-entered using the Default Approach. FY 2008 and FY 2011 mixed- refrigerant data were verified to be consistent with past entries and were checked to ensure they are not double counted as Fugitive F-Gas. These data were collected based on reviewing purchasing and HMIS data.
- The Scope 1 GHG emissions from waste disposed at the on-site landfill were removed from the CEDR tab 9.1a. Y-12 does not operate the DOE Oak Ridge Reservation (ORR) Landfill. This landfill is operated under an Environmental Management contract by the East Tennessee Technology Park (ETTP) contractor. The Scope 1 emissions from the total quantity of sanitary landfill waste received from Y-12, Oak Ridge National Laboratory (ORNL), and other entities are reported by ETTP. Y-12 reports the volume of waste disposed in the ORR landfill in a comment section in the Pollution Prevention Tracking System but does not report the related fugitive emissions for this waste to avoid duplicate reporting of fugitive emissions by

ETTP, Y-12, and ORNL. This approach was agreed upon by personnel from DOE Headquarters, local DOE offices, and each respective site prior to establishing the 2008 baseline.

PROJECTED PERFORMANCE

The consolidated projected GHG emissions are presented in Fig. 1.2 and Table 1.2. The projections include Scope 2 reductions from energy efficiencies that will be achieved through site transformation activities, Scope 1 increases due to fleet fuel for security forces (discussed in Sect. 1.2), and Scope 1 reductions from improvements to the Vertrel-based metal cleaning process, with ultimate elimination of this GHG solvent with UPF start-up. As shown in Table 1.2, energy efficiencies achieved through building consolidation and demobilization are expected to be off-set by increased fuel consumption and load demand during UPF construction and start-up.

Purchased electricity (Scope 2) is by far the biggest contributor to Y-12's GHG footprint, accounting for 71% of all Scope 1 & 2 GHG emissions. Expected increased electricity demand during UPF construction during 2015 through 2022 will add an additional challenge to meeting this sustainability goal. While opportunities for reducing Scope 1 fugitive emissions (by replacing Vertrel with a non-GHG-emitting solution) will make a significant contribution toward reaching the goal, Y-12 is implementing a multifaceted approach, with reduced electricity consumption as a key focal point, to ensure the 28% reduction will be maintained. Energy reduction efforts must include major initiatives involving production facilities and utility infrastructure, since more than half of Y-12 electricity usage and associated CO_2 emissions are consumed primarily in these areas. The Y-12 site transformation plan currently includes many elements that will reduce the number of operating facilities and utility infrastructure. This effort will, in turn, also reduce the electricity demand and GHG emissions as represented in Fig. 1.2. However, without significant

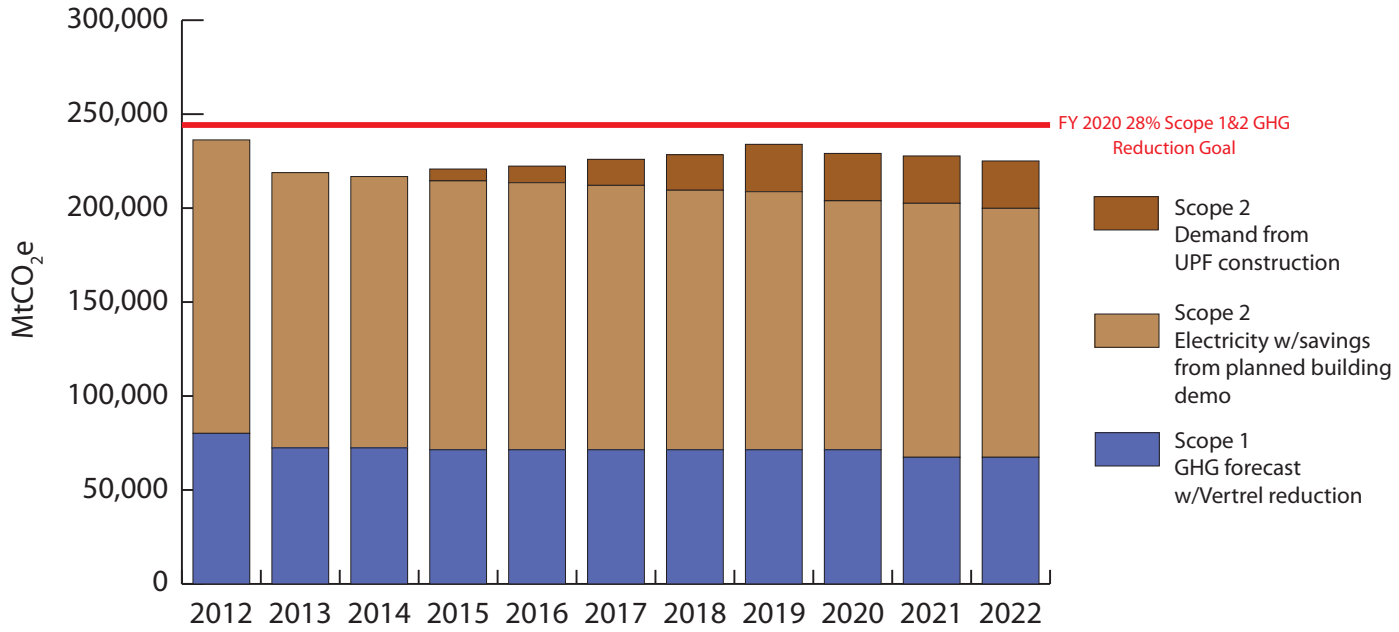

Fig. 1.2. The projected GHG emissions include Scope 2 reductions from energy efficiencies achieved through site transformation activities.

Table 1.2. Scope 1 & 2 GHG projections

GHG Forecast ($MTCo_2e$)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Scope 2 Electricity Consumption	156,162	146,481	145,015	143,565	142,129	140,708	139,301	137,908	136,529	135,164	133,812
Energy Savings (Building Demo)		0	(620)	(470)	(2)	(2)	(1,188)	(570)	(4,032)	(20)	(1,344)
Electricity (Savings from Demo)	156,162	146,481	144,395	143,095	142,127	140,707	138,113	137,338	132,497	135,143	132,468
Demand Growth - UPF Construction				6,301	8,821	13,861	18,902	25,203	25,203	25,203	25,203
Scope 2 GHG Forecast	**156,162**	**146,481**	**144,395**	**149,396**	**150,948**	**154,568**	**157,015**	**162,541**	**157,700**	**160,347**	**157,671**
Scope 1 Projections (FY 2012)	80,133	71,731	71,731	71,731	71,731	71,731	71,731	71,731	71,731	71,731	71,731
Vertrel Cleaning Improvements (Current Processes)				(997)	(997)	(997)	(997)	(997)	(997)		
Vertrel Elimination (UPF)										(4983)	(4983)
Scope 1 GHG Forecast	**80,133**	**71,731**	**71,731**	**70,734**	**70,734**	**70,734**	**70,734**	**70,734**	**70,734**	**66,748**	**66,748**
Scope 1 & 2 GHG Forecast	**236,295**	**218,212**	**216,126**	**220,130**	**221,683**	**225,302**	**227,750**	**233,275**	**228,434**	**227,094**	**224,419**
28% Reduction Target Scope 1 & 2									**243,269**		

funding for transformation and demolition, very little impact to energy intensity and Scope 2 GHG emissions can be implemented within these areas. Although construction will not be complete until after 2020, UPF will allow for a significant portion of the production facilities to be deactivated and eventually demolished, further reducing GHG emissions.

Planned activities that, if fully funded and implemented, will result in GHG savings that achieve the Scope 1 & 2 GHG 28% reduction goal by 2020 include:

- Scope 1 Fugitive Emission Reduction: The Vertrel process is the source of a large fugitive GHG emission (HFC-4310mee), which is dependent on production rates. Y-12 emitted more than 8,400 pounds of Vertrel last year (approx. 5,000 $MTCO_2e$ emissions). Y-12 Production operates a system to reclaim and reuse Vertrel, but the product is used in open vessels, which allows significant evaporation as it is processed. Y-12 Technology Development has completed studies to identify an alternate improved cleaning process for implementation in current operations (Y/DZ-3394, Removal of 50/50 Propylene Glycol/Water and Aqueous Trim® C350 Machine Coolant from Steel Wool, Stainless Steel Chips, and Depleted Uranium Chips). The lab study indicates that Vertrel bath cleaning effectiveness will be improved by restoring and maintaining an optimal alcohol level in the Vertrel formulation. Improved effectiveness may lead to reduced usage and emissions. A path forward for implementing this system is being developed and funding needs

identified. In addition, a Vertrel-free process targeted for implementation in UPF is incorporated into the current UPF design plans, and is described in the Y-12 development report, Y/DZ-3310, Machine Chip and Part Cleaning Alternatives (September 2011).

- Scope 2 Reductions through Site Transformation: Current site transformation plans call for deactivation or removal of over 1.16 million ft^2 of buildings by 2030. These planned activities will result in eliminating annual emissions that total more than 8,000 MT of Scope 2 GHG emissions from 2014 through 2022. Nearly 1 million ft^2 of this footprint is attributed to deactivation of production facilities 9204-04 and 9201-05. American Recovery and Reinvestment Act funding contributed appreciably to the deactivation and shutdown activities. Energy consumption has been significantly reduced, and minimal steam and energy use will be expended to maintain the facilities in safe condition. The majority of the demolition activities are planned in 2020, making it possible that not all energy savings from these activities will be realized in the final goal year of FY 2020. However, current projections indicate sufficient reductions will occur, provided Vertrel reduction efforts are successful.
- Scope 2 Reductions through Energy Efficiency Projects, Conservation Measures, and HPSB Efforts: These are described in Sect. 2. While GHG reductions are expected as a result of these projects, the impact and timing is not currently defined, and the reductions are not included in the projections in Fig. 1.2 and Table 1.2.

Estimated additional funding requirements for energy improvement projects, measurable goals and milestones, and training and awareness activities necessary to encourage behavior changes that will maximize energy conservation are discussed in Sect. 2.5. Measurable goals are being established for FY 2014 to promote continued progress improving the current Vertrel cleaning process.

1.2. SCOPE 3 GHG REDUCTION

Y-12 is currently meeting the incremental reduction targets for the 13% Scope 3 GHG reduction by FY 2020 from an FY 2008 baseline.

PERFORMANCE STATUS

Y-12's Scope 3 GHG emissions have decreased by 11.5% since FY 2008 (Table 1.3). This reduction is due primarily to reductions in business travel and transmission and distribution losses. The security forces were added to the site contract early in FY 2013, which further increased the site headcount. Any increase in site headcount directly impacts employee commuting and off-site wastewater treatment emissions.

Table 1.3. Scope 3 GHG reductions

Emission Source	($MTCO_2e$/yr)		
	FY 2008	% Change	FY 2013
Employee Commuting	17,447	+5.3%	18,369.6
Business Ground and Air Travel	2,251	-50.1%	1,123
Transmission and Distribution Losses	12,185.8	-28.4%	8,723.6
Contracted Off-Site Wastewater Treatment	25.3	+3.6%	26.2
Contracted Off-Site Municipal Waste Disposal	N/A	N/A	N/A
Total Scope 3	**31,909.1**	**-11.5%**	**28,242.4**

EMPLOYEE COMMUTING

Overall Y-12 commuting GHG emissions have increased by 5.3% since the 2008 baseline. The increase in commuting emissions is due in part to the addition of the security personnel to the site contract in FY 2013. With minimal public transit options available, Y-12 has used a multi-pronged approach to reduce the impacts of Y-12 employees' commute to work each day and has a well-established carpooling/ride-share program. Y-12 promotes employee participation in Smart Trips, a local program that promotes alternatives to driving alone to work. Smart Trips had a booth at the Y-12 Earth Day Celebration to educate employees on alternative commuting methods and Smart Trips programs. Participants who register with Smart Trips and log the details of their alternative commutes are rewarded. The number of employees participating in Smart Trips increased by over 50% in FY 2013. Smart Trips shares the number of miles and emissions prevented by Y-12 employees' efforts each year.

In FY 2013, Y-12 was recognized as having met the National Standard of Excellence awarded by the Best Workplaces for Commuters (BWC) (Fig. 1.3). BWC is an innovative program that encourages sustainable transportation. Y-12's compressed work week prevents more than 190,000 vehicle miles traveled each week and eliminates approximately 4,500 $MTCO_2e$ each year.

Fig. 1.3. Y-12 was recognized as having met the National Standard of Excellence awarded by the Best Workplaces for Commuters.

To calculate commuting emissions, Y-12 calculates the average employee commute distance from employee data. The average commute distance is applied to the ratio of vehicle types driven by site employees and the standard work schedule. The alternative commuting data received from Smart Trips is incorporated into the final commuting emissions calculations.

Y-12 converted to a 4/10 work week prior to the baseline of 2008; therefore, Y-12 is continuing to investigate other alternatives to help reduce Scope 3 GHG emissions. Y-12 has a flexible workplace program procedure to allow an alternative work arrangement of a home-based office. The Flexible Workplace Program procedure, Y11-613, was revised in FY 2013 to add Human Resources approval for participation and establishment of a Review Board for requests for reasonable accommodation for a disability or phased return to work for a temporary medical restriction. In addition to the 4/10 work week and flexible workplace program, Y-12 federal employees have been utilizing telecommuting for approximately two years. This allows a federal employee to work from home one day a week instead of driving to work.

BUSINESS GROUND AND AIR TRAVEL

The business ground and air travel GHG emissions decreased significantly in FY 2013 due to restrictions on business travel caused by sequestration funding levels. Business travel GHG emissions have decreased 50% since the 2008 baseline. While employees need to occasionally travel as part of their jobs, Y-12 strongly supports the use of webinars and conference calls to avoid business travel. If travel is required to support mission needs, Y-12 strongly encourages employees to use available shuttles and mass transit rather than renting a car at their destinations.

Y-12 utilizes data provided by the Accounts Payable and Travel Organization in order to calculate the business ground and air travel emissions. The actual air miles flown by site employees utilized for air travel emissions calculations was based upon reports received from the Y-12 travel agency. The number of vehicle rentals and personal vehicle miles traveled are calculated based on information from business travel expense data.

TRANSMISSION AND DISTRIBUTION LOSSES

Transmission and distribution (T&D) losses were calculated by the CEDR spreadsheet as 9,648 $MTCO_2e$ which was reduced by the T&D Loss portion of purchased Renewable Energy Credits (925 $MTCO_2e$).

CONTRACTED (OFF-SITE) WASTEWATER TREATMENT

The increase in contracted off-site wastewater treatment GHG emissions is proportional to the increase in plant population. Y-12 is continuing modernization efforts to reduce the amount of water that requires off-site treatment.

The off-site wastewater treatment emissions are calculated solely based upon the plant population that generates sanitary wastewater sent to the City of Oak Ridge Wastewater Treatment Plant. The City of Oak Ridge operates an activated sludge treatment plant, which includes nitrification and limited denitrification.

CONTRACTED (OFF-SITE) MUNICIPAL WASTE DISPOSAL

The Y-12 Complex does not send any municipal waste off-site for disposal. All municipal waste generated at Y-12 is sent to the DOE ORR Landfill, which is located within the 229 boundary of the site.

PROJECTED PERFORMANCE

The current 11.5% reduction in Scope 3 emissions will be challenging to sustain and increase to meet the 13% reduction goal by FY 2020. Business travel was severely restricted in FY 2013 due to sequestration funding levels. It is expected that future business travel will raise above FY 2013 levels. UPF construction activities will result in a significant increase in plant population in the coming years. It will be difficult for Y-12 to meet the reduction goal for Scope 3 GHG emissions without the addition of public transit to the Oak Ridge area and/or a telecommuting program. To further reduce employee commuting, Y-12 will continue to encourage the use of the Y-12 carpooling and ride-share programs. Y-12 will continue the 4/10 work week. To assist with business travel reduction, Y-12 will continue to promote the use of teleconferences and mass transit while on business travel and is evaluating methods to enhance teleconference and webinar capabilities to reduce the need for travel.

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2.1. ENERGY INTENSITY REDUCTION

Achieve thirty percent energy intensity (Btu per GSF) reduction by FY 2015 from an FY 2003 baseline.

PERFORMANCE STATUS

Y-12 is meeting the reduction goal and has achieved a 34% reduction in energy intensity from the 2003 baseline (Fig. 2.1).

The Y-12 site has been on a path of transformation for several years. Numerous buildings have been demolished and many more have been shut down pending demolition. During a Federal Energy Management Program (FEMP) assessment in 2009, it was noted that reducing the square footage by excluding the shutdown facilities from the energy intensity calculation was skewing the resulting data. An evaluation of the 2003 baseline indicated that all facilities had been included in the denominator, regardless of status. Several of these facilities were large, process-type structures. National Nuclear Security Administration (NNSA) and DOE Sustainability Program offices approved the approach that facility gross square feet (GSF) would remain in the calculation until the facility was actually demolished. It was concluded that this would allow Y-12 to meet the energy intensity reduction goals regardless of what is taken out of service. This approach also recognizes that there is limited actual meter data to base energy allocations between goal-subject buildings and excluded buildings.

Based on FY 2013 data, energy use at Y-12 is 2,037,495 MBtus. The square footage is 7,383,047; therefore, the FY 2013 estimated energy intensity is 275,969 Btus/GSF, which represents an 8% reduction from FY 2012. The site has made good progress in implementing energy reduction initiatives, and has essentially met the goal.

BEST MANAGEMENT PRACTICES

Significant reductions have been noted with the implementation of the Energy Savings Performance Contract (ESPC) at Y-12. Delivery order #3 was signed in September and is expected to begin implementation in January 2014. This new contract is expected to save 319,894 MBtu per year over the life of the contract.

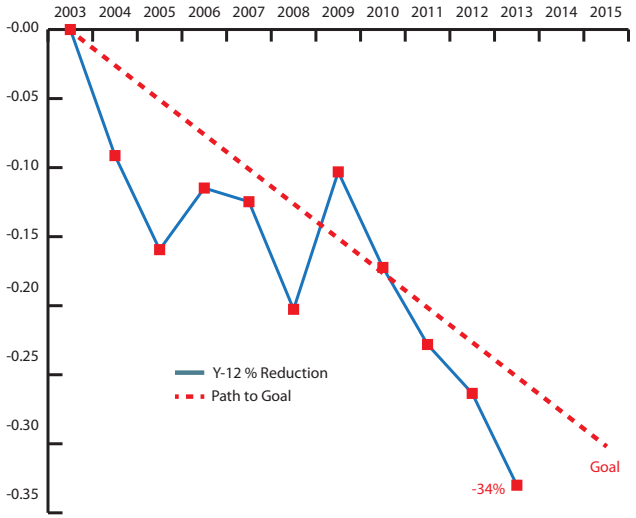

Fig. 2.1. Y-12 has achieved a 34% reduction in energy intensity.

Specific initiatives that aided in the reduction of electricity consumption at Y-12 during FY 2013 included:

- Installed light-emitting diode (LED) and T-8 fluorescent lighting;
- Improved meter readings via Utility Management System (UMS) and employee awareness;
- Personnel relocations to vacate 2 facilities; and
- Utility efficiencies including reduction in steam pressure, chilled water production, and condensate return.

As Fig. 2.2 indicates, energy reductions will be required in numerous areas to fully reduce energy across the plant. Both facility and utilities management are diligently focusing on improvements to achieve the goal. Efforts that are fully incorporated into planning activities for facilities include:

- Energy Independence and Securities Act (EISA) assessments are included in annual reporting.
- Energy Conservation Measures (ECMs) from both EISA and the ESPC process are included in budgeting reviews.
- Low-cost/no-cost efforts, including component replacements are incorporated into routine activities.
- EISA assessments and Condition Assessment Surveys share resources, including personnel and database support.
- Although the site does not implement a space charge, equivalent metering cost is distributed to facility tenants for awareness.

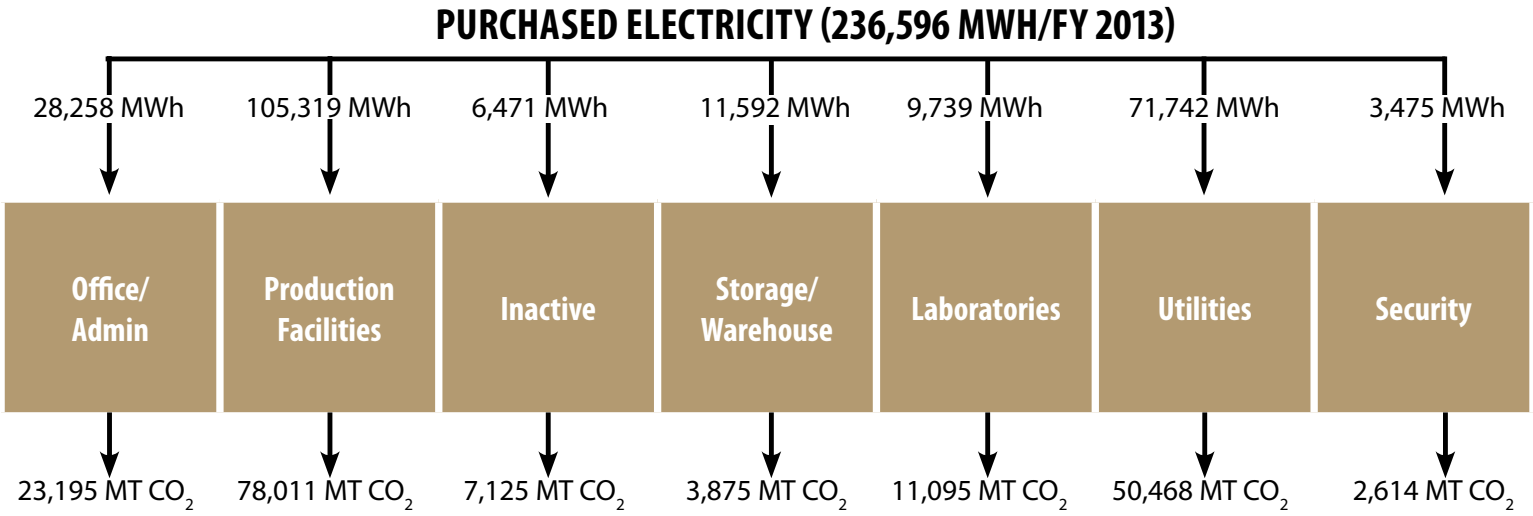

Fig. 2.2. A multi-faceted approach is required to reduce purchased electricity and resultant GHG emissions.

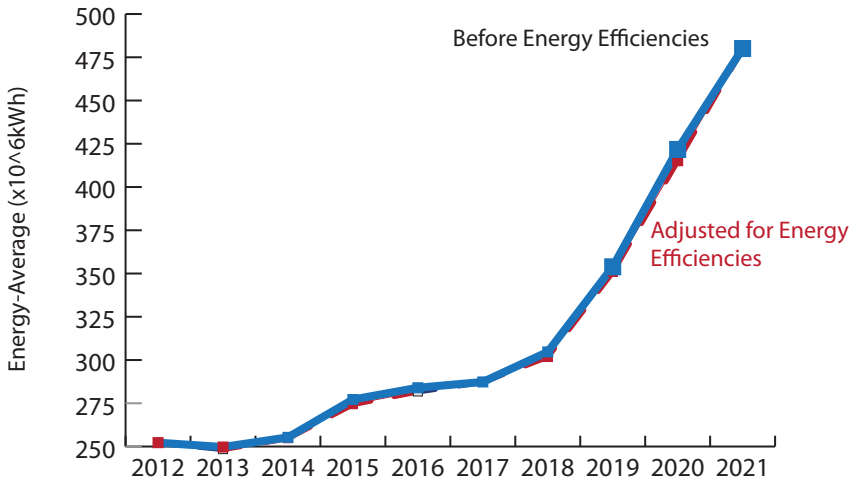

Fig. 2.3. Energy load forecast.

As noted in Fig. 2.3, future reductions may be challenging due to a projected increase to the site's energy intensity. Current projections indicate increases may occur once UPF goes on-line, but will again be reduced when an infrastructure reduction program can demolish the remaining facilities in the site transformation plan.

PROJECTED PERFORMANCE

The following efforts are planned to ensure continued site success for energy reduction.

- Implement ESPC delivery order #3 (lighting, chilled water, steam).
- Identify and consolidate data centers per Office of Management Budget definition.
- Continue installation of advanced metering in accordance with meter plan.
- Upgrade facilities for HPSB compliance and implement building retro-commissioning.
- Continue implementation of cool roof applications.
- Encourage energy reduction through tenant awareness, including training and monthly meter reporting.

Both production and balance of plant facilities are funded under the Readiness in Technical Base and Facilities Operations of Facilities plan. Current budgets through Future Years Nuclear Security Plan do not support minimum operations, which places energy projects at risk for dedicated funding. However, energy projects are included in out-year planning for the site and, where possible and with adequate return on investment, will be funded. Energy initiatives are planned for several existing buildings, as funding is identified below.

- Based on EISA assessments, heating, ventilating, and air conditioning (HVAC) units beyond design life are planned for replacement in several facilities. These replacements support the HPSB goal and ensure plant personnel are in environmentally friendly offices. This effort will also reduce maintenance efforts to keep the units functional.
- Lighting upgrades will be implemented under the ESPC and will include T-8 fluorescent replacements, LED low-bay fixtures, and occupant sensors.
- Plug-load reductions will be installed in HPSB candidate facilities.

Energy savings will be tracked on all the projects, and proven reductions may be reinvested for funding new energy projects. The impact of this analysis is not currently known, so actual reinvestments cannot be fully understood at this time.

As noted in Fig. 2.3, the site energy usage is expected to increase over the next several years. This is a direct result of the construction of UPF. Projections are captured in Table 2.1 and include an estimated energy increase for construction, a reduction due to gained efficiencies at the site, and shutdown and demolition of facilities in accordance with the Y-12 Master Site Plan and Ten Year Site Plan.

Table 2.1. Load Forecast and Projected Energy Use for Y-12 and Associated Major Demand Growth Components (KWhx10^6)

Load Forecast and Projected Energy Use for Y-12 and Associated Major Demand Growth Components (kWh x 10^6)										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total Electricity Consumption	252.2333	249.7109	247.2138	244.7417	242.2943	239.8713	237.4726	235.0979	232.7469	230.4194
Demand Growth Components	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
UPF*			8.1	32.434	41.692	47.455	67.235	118.778	188.967	249.639
Energy Efficiencies		-1.20339	-0.48851	-2.69779	-2.16586	-0.00245	-2.76423	-2.921	-6.51318	-0.03272

**Assumptions for UPF include incremental increases beginning in FY 2014 due to construction, with beneficial occupancy in 2018. Transition efforts will begin post 2018 and continue beyond 2020.*

Sites were requested to voluntarily provide the following information.

BTU/TOTAL MISSION DOLLAR

Total site Btu: 2,037,495,174,860
Total operating Cost: $854,646,000
Btu/TMD: 2,384

BTU/CAPITA

Total site Btu: 2,037,495,174,860
Total full-time equivalent (FTE) Staff: 4,303
Btu/FTE: 473,505,734
Line Item funding associated with UPF construction was removed from the equation.

2.2. EISA SECTION 432

Perform energy and water evaluations; benchmarking, project implementation, and measures.

PERFORMANCE STATUS

As reported via the Consolidated Tracking System (CTS), Y-12 has completed both energy and water assessments on 89% of energy consuming facilities at Y-12. A covered facility is defined as those facilities that constitute 75% of the energy consumption (Table 2.2). Based on the requirement to assess 100% of the covered facilities at the site, Y-12 has successfully completed the first four-year requirement, and began reassessments during FY 2013. Additional assessments were completed during FY 2013 as part of the ESPC Inspection Grade Audit for delivery order #3.

Table 2.2. Y-12 Site and covered facilities characteristics

CTS Site Reported Characteristics				Covered Facilities Characteristics	
Fiscal Year	Total Energy Consumption (10^6 x Btu/Yr)	Potable Water Consumption (10^6 x Btu/Yr)	GSF	Covered Energy Consumption (10^6 x Btu/Yr)[2]	Covered SF
2012	2,113,565.659	962.714	6,858,240	2,050,067	2,704,231
2011	2,307,470.164	997.204	7,173,781	2,211,603.060	2,704,231
2010	2,488,319.667	1,071.056	7,184,211	2,488,319.667	7,184,211
2009	2,682,241.111	1,181.431	7,164,385	2,682,214.111	7,146,385
2008	2,348,073.153	1,171.759	7,037,070	2,348,073.153	7,037,070

**Data from Portfolio Manager is migrated to CTS for annual reporting in June. FY 2013 data will be available and reported in FY 2014.*

EISA ASSESSMENTS

Comprehensive water and energy audits at Y-12 are performed to meet EISA 432 (Table 2.3). These audits evaluate energy and water use and identify opportunities to reduce the use. The audits are performed by an In-house former Condition Assessment Survey Inspector with energy training. The implementation cost for the ECMs are developed using the Condition Assessment Information System (CAIS) database. The audit report component of this evaluation is divided into six sections. Recommended ECMs are included in CEDR tab 3.3 and were reported in the CTS.

Table 2.3. EISA energy and water evaluations

Energy and Water Evaluations			
EISA S432 Reporting Year	Completed Energy Evaluations (SF)	Percent Progress Toward Goal (%)	Completed Water Evaluation (SF)
2012	2,345,792	115%	2,345,792
2011	302,193	29%	302,193
2010	270,218	17%	270,218
2009	201,705	7%	201,705

**Data from Portfolio Manager is migrated to CTS for annual reporting in June. FY 2013 data will be available and reported in FY 2014.*

RE/RETRO-COMMISSIONING EVALUATION

A detailed evaluation has been completed for every facility that has been audited. Energy and water related Operations and Maintenance (O&M) and optimization have been identified in some facilities. The projected savings and the estimated implementation cost are listed in the O&M section of the audit report. More capital intensive retrofit opportunities are listed in the ECM section of the audit report.

As required by the EISA 432, Y-12 provides an annual report of assessment progress and potential ECMs. The following tables are consistent with the reporting for FY 2013.

Although independent verification and commissioning is not performed, systems within facilities are evaluated and considered as part of the ongoing Condition Assessment Surveys and the EISA assessments. Systems in facilities are compared against life-cycle recommendations, technical obsolescence, and current condition. Recommendations are documented and included in future planning for upgrades to the facilities. In consideration of much needed funding for upgrades and repairs, Y-12 felt using existing resources for independent assessments was not cost effective. As facilities are upgraded, the site will consider using an independent commissioning agent for this purpose. At present, the Jack Case Center has a commissioning agent that performs continuous commissioning. Y-12 has access to the reports and utilizes the information as part of the EISA evaluation. New facilities that have been placed into service in the last several years have a commissioning element in the project acceptance criteria. This information is included in the Site Reliability Centered Maintenance effort.

PORTFOLIO MANAGER

Y-12 began entering facilities into the Environmental Protection Agency (EPA) Portfolio Manager in FY 2011. During FY 2013, metering data continued to be included in the portfolio manager and as new meter data became available additional information was added. During this FY, many chilled water Btu meters were added. At present, 103 facilities have been entered and are being tracked for compliance. Y-12 enters and tracks data for both covered and non-covered facilities. Data from the Portfolio Manager is shared with NNSA Sustainability contacts and is automatically migrated to the CTS for the annual reporting in June.

MEASUREMENT & VERIFICATION

The Measurement and Verification (M&V) Methodology employed for the ESPC project is consistent with the DOE FEMP document titled M&V Guidelines: Measurement and Verification for Federal Energy Projects, Version 3.0. This document is a specific application of the International Performance Measurement and Verification Protocol and American Society of Heating, Refrigeration, and Air-Conditioning Engineers Guideline 14: Measurement of Energy and Demand Savings to be used on Federal sector projects.

The results of the inspection and data review and the effect on savings will be summarized in the Annual Report. If a savings shortfall is discovered or installed equipment fails to perform as specified in the Final

Proposal, the Annual Report will propose a remedy to minimize the potential for lost savings.

The M&V methodology balances the cost and benefit of long-term monitoring to ensure that guaranteed savings occur. Energy savings are determined by comparing the energy and O&M cost before and after the installation of the ECMs.

In general,
Cost Savings = Baseline Costs ($/Year) – Post-Installation Costs ($/Year)

Table 2.4 presents the proposed annual energy and energy-related savings for this ESPC project, and Table 2.5 summarizes the M&V plan.

Additional M&V activities are performed on energy reduction efforts implemented in the Jack Case Center this year. Monthly meter data is evaluated to ensure reductions are still being realized. Additionally, spot checks of office plug-load installations are made to verify compliance with watt-stopper installation and usage of space heaters and fans.

PROJECTED PERFORMANCE

FOUR-YEAR PLAN FOR EISA ASSESSMENTS

In accordance with the EISA of 2007, all agencies must identify all "covered facilities" that constitute at least 75% of the agency's facility energy use. A covered facility may be defined as "a group of facilities at a single location or multiple locations managed as an integrated operation."

Although previous assessments were performed by Energy Savings Contractors and FEMP, Y-12 did not perform EISA assessments internally prior to FY 2011. An approach was presented to the NNSA Production Office (NPO) in November 2010 to begin implementation of the required assessments. The desired assessment schedule would encompass three fiscal years, with the understanding that additional facilities could

Table 2.4. Energy savings performance contract annual savings — Delivery Order #2

Total Energy Savings (MBtu)	Electric Energy Savings (kWh)	Electric Demand Savings (kW)	Natural Gas Savings (MBtu)	Potable Water Savings (Gallons)	Other Energy Savings (MBtu)	Total Energy and Water Cost Savings	Other Energy-Related O&M Cost Savings	Total Cost Savings
ECM 2.1: Chiller Plant Improvement								
33,590	9,841,804	9,743	-	-	-	$440,424	-	$440,424
ECM 7.1: Condensate Return System Modifications								
30,890	-131,614	-180	31,339	52,012,781	-	$361,612	$2,325	$364,937
ECM 7.2: Steam Trap Improvements								
44,823	-	-	44,823	-	-	$428,357	-	$428,357
ECM 16.1: Demineralized Water Production Facility Replacement								
1,757	336,611	-104	609	2,988,588	-	$48,886	$727,465	$776,351
Total								
111,060	10,046,801	9,459	76,771	55,001,369	-	$1,279,278	$730,790	$2,010,068
Guaranteed Annual Cost Savings:						**$1,902,062**		

Table 2.5. Measurement and Verification Plan for ESPC — Deliver Order #2

ECM	ECM Description	M&V Option	Summary of M&V Plan
2.1	Chiller Plant Improvement	FEMP Option B	The advanced electricity and chilled water meters installed for the development of this ECM will be utilized throughout the Performance Period to validate system performance. The metered chilled water plant electricity input and chilled water output will be used along with the recorded dry bulb temperature to create the performance year regression model. The data will be normalized using the 30 year average weather data for comparison with the baseline regression model. In addition, the Performance Assurance Engineer will visually inspect the installed equipment, review control system programming and energy saving algorithms, review the UMS-based metered data, review the chiller plant logs, and review related maintenance and repair records quarterly.
7.1	Condensate Return System Modification	FEMP Option B	Manufacturer-provided performance data will be reviewed to ensure that the new equipment meets or exceeds the performance criteria set forth in the Final Proposal. The Commissioning Report will be reviewed to ensure the equipment has been installed and is operating as intended. Various measurements, such as pump motor electricity demand (kW) and condensate water return flow rate and temperature, will be made during Commissioning to ensure the system is operating as intended. If the new equipment fails to perform as specified in the Final Proposal, necessary adjustments will be made to the system or the savings calculations will be modified. This will be reported in the Post-Installation Report. The advanced condensate meter will be utilized throughout the Performance Period to validate system performance. In addition, the Performance Assurance Engineer will visually inspect the installed equipment, review the boiler plant logs, and review related maintenance and repair records quarterly. Savings calculations will be updated annually.
7.2	Steam Trap Improvement	FEMP Option A	During the Performance Period, the Performance Assurance Engineer will walk the outdoor steam distribution system quarterly and make thermal measurements in an effort to identify leaking steam traps. Approximately 25% of the new steam traps inside the 23 buildings will be visually inspected with thermal testing quarterly to ensure the devices are operable. Steam traps noted as leaking will be brought to the attention of the Y-12 Complex. Y-12 Complex-provided maintenance and repair records and steam trap purchase records will be reviewed quarterly.
16.1	Demineralized Water Production Facility Replacement	FEMP Option B	The new plant will have advanced metering interfaced to the Y-12 Site UMS allowing monitoring of the electrical supply, potable water supply, treated water production, and wastewater discharge. In addition to the meters, various points throughout the water treatment process will be trended by the control system. The advanced meters will be utilized throughout the Performance Period to validate system performance. In addition, the Performance Assurance Engineer will visually inspect the installed equipment, review the plant logs, and review related maintenance and repair records quarterly. Savings calculations will be updated annually.

be added to the schedule as needed. The list of facilities in Table 2.6 includes evaluations for 'Covered Facilities' and also includes assessments for potential energy savings within high performance and sustainable building candidates and the chilled water process system. All EISA assessments for 'Covered Facilities' have been completed. 'Covered Facilities' are required to have an EISA assessment performed every three years. The first cycle of reassessments will resume in FY 2014.

Facilities located at the Central Training Facility do not meet the 'Covered Facility' criteria. However, the facilities will be included in a baseline assessment for energy conservation measures expectantly in FY 2014. This will allow for future planning and potential HPSB compliance.

Table 2.6. EISA assessment schedule

EISA Assessment Schedule			
FIMS ID	**Property ID**	**Property Name**	**GSF**
Completed in FY 2011			
98357	9103	Central Computing Facility	110,248
98369	9113	Office Building	59,299
98374	9119	Office Building	73,381
98634	9767-04	Utilities	6,893
98373	9117	Central Computing Facility	19,648
98639	9767-10	Chiller Building	12,000
98642	9767-13	Chiller Building	20,724
98377	9201-03	Office Building Maintenance	191,978
			305,282
Completed in FY 2012			
204358	301BCR	Jack Case Center	411,837
98375	9201-01	Production (Alpha-1)	270,988
98397	9215	Production	188,729
98801	9995	Plant Laboratory	81,655
98803	9998	Maint., Machine Shops	152,134
98380	9201-05N	Production (Alpha-5N)	78,049
133777	9201-05W	Machine Shop	70,005
98385	9204-02	Production(Beta-2)	324,085
98395	9212	Production	442,317
98388	9204-02E	Production(Beta-2e)	172,892
98621	9737	Laboratory/Office	98,017
98637	9767-08	Chiller	4,847
98640	9767-11	Chiller Building	4,880
98381	9202	Dev. Labs. & Offices	157,228
98382	9203	Dev. Labs. & Offices	31,107
			2,603,450
Completed in FY 2013			
98641	9767-12	Chiller Bldg., 9737	3,089
98370	9114	Office Building	36,901
98371	9115	Office Building	16,415
98372	9116	Office Building	16,415
207482	9401-07	Steam Plant	**19,200**
207178	9720-82	Storage Building	153,001
202699	9733-05	Technical Support Facility I	13,322
98598	9723-27	Changehouse	11,670
98599	9723-28	Changehouse	10,252
98600	9723-31	Changehouse	27,532
98601	9723-33	Changehouse	10,771
200821	9723-34	Changehouse	6,700
98529	9710-03	Guard Headquarters	41,496
			248,995

According to the "Facility Energy Management Guidelines and Criteria for Energy and Water Evaluations in Covered Facilities," Federal agencies are to identify covered facilities where it makes the most sense to concentrate their efforts. The recommended approach for this is to rank facilities according to highest energy use. Under the statute, each agency must designate "covered facilities" that comprise at least 75% of its facility energy use. This list will include all of the facilities where this energy management approach makes sense with 75% as a required minimum threshold.

The listing of covered facilities and associated energy consumption identified for Y-12 is provided in Table 2.7.

In addition to the CTS reporting each year, the assessment findings are provided as a report to NPO. Within each narrative, the following information is provided:

- a description of each facility, including construction details, size and age;

Table 2.7. Y-12 EISA-covered facilities

Buildings	GSF	FY KWh Total	% of FY 2013 Total	Electricity Btu	Natural Gas Btu	Fuel Oil Btu	Total Btu
9212	442,317	26,214,257	11.28%	89,443.04	146,761	0	239,140.14
9767-13	20,724	24,312,528	10.46%	82,954.35	0	0	82,954.35
9215	188,729	15,727,216	6.77%	53,661.26	146,761	0	203,358.36
9998	152,134	12,667,672	5.45%	43,222.10	0	0	43,222.10
9767-04	6,893	11,651,275	5.01%	39,754.15	0	0	39,754.15
301 BCR	411,937	10,260,000	4.41%	35,007.12	0	0	35,007.12
9767-10	12,000	8,368,080	3.60%	28,551.89	0	0	28,551.89
9201-01	270,988	7,228,330	3.11%	24,663.06	0	0	24,663.06
9204-02	324,085	6,974,324	3.00%	23,796.39	172,438	0	199,684.19
9204-02E	172,892	6,851,758	2.95%	23,378.20	0	0	23,378.20
9995	81,655	6,804,497	2.93%	23,216.94	0	0	23,216.94
1418		4,770,140	2.05%	16,275.72	0	0	16,275.72
9767-11	4,880	4,736,960	2.04%	16,162.51	0	0	16,162.51
9201-05N	78,049	4,600,000	1.98%	15,695.20	0	0	15,695.20
9720-82	153,001	4,411,188	1.90%	15,050.97	0	0	15,050.97
602 SCA	137,758	4,085,000	1.76%	13,938.02	0	0	13,938.02
9404-10	3,380	4,056,000	1.74%	13,839.07	0	0	13,839.07
9201-05W	70,005	3,925,300	1.69%	13,393.12	0	0	13,393.12
9201-03	191,978	3,735,243	1.61%	12,744.65	0	0	12,744.65
9767-12	3,089	3,552,350	1.53%	12,120.62	0	0	12,120.62
9737	98,017	3,227,000	1.39%	11,010.52	0	0	11,010.52
9401-07	19,200	3,131,384	1.35%	10,684.28	691,528	40,328.71	756,375.69
TOTALS	**759,357**	**181,290,502**	**78.01%**	**618,563.18**	**1,157,488**	**40,328.71**	**1,839,536.59**

- a review of the energy consumption (if available) from the 2003 baseline to today;
- an overview of the metering capabilities/plans for implementation; and
- a narrative description of potential ECMs, including:
  - description of measure,
  - estimated cost of measure,
  - estimated annual energy/water consumption and cost savings, and
  - payback period.

COVERED FACILITIES

The energy manager is a participating member of the site planning team and is engaged in activities for demolition and new construction. The EISA-covered facilities are evaluated against the Ten Year Site Plan and Master Site Plan. As changes to the inventory are planned, energy usage is evaluated to ensure the 75% compliance is maintained. As facilities are made cold and dark, the Facility Information Management System (FIMS) is updated to reflect the energy consuming field accordingly.

2.3. METERING

Y-12 currently has numerous standard and advanced electrical meters located on various facilities throughout the plant. Efforts to read meters and monitor commodity information have improved significantly this year due to the connection of several additional meters to the UMS. The actual electricity costs for the plant are based on total energy consumption as defined by the Tennessee Valley Authority (TVA) revenue meters in the ELZA 1 substation. Y-12 does not use a space chargeback system, and individual building metering is not currently used for such purposes. Monitoring of the ELZA 1 substation electricity usage is used to ensure accurate billing from TVA and develop the annual utilities budget.

Btu meters were installed on components of the chilled water system as part of the ESPC project, and these meters along with newly installed cooling tower meters have been added to the automatic output from UMS. Natural gas meters are located at the steam plant on each of the boilers.

For purposes of this metering plan, the term 'Appropriate Buildings' applies to all buildings already metered in addition to "appropriate buildings" as defined by FEMP guidance and site criteria. Buildings meeting these criteria are included in Appendix A as the Y-12 Metering Spreadsheet. Summary data from the profile was used to generate the tables contained within the following sections.

The Central Training Facility receives power, water, and natural gas from the Oak Ridge Utility District. Electricity is currently metered at the point of service with no sub-metering of facilities. Natural gas meters are installed at each facility where serviced.

PERFORMANCE STATUS

Recent focus has been on installation of new meters and connectivity to UMS. Some focus included Btu metering for chilled water and connecting previously installed meters to UMS. As these connections have progressed, data is being migrated to the energy management module for eventual use in site metrics, data reporting, and energy conservation measures. Meter data is also entered into the Portfolio Manager for benchmarking and reporting purposes.

Meter data is distributed to facility management and building tenants for educational purposes. Since a space chargeback system is not in use, the monthly cost for electricity, if billed individually, is provided with the total consumption. As more facilities are metered and historical trending is available, metrics will be provided to monitor progress toward goals at the building level. To further employee awareness, competitions between buildings and organizations may be implemented to emphasize the impact of employees.

See Appendix A for the Y-12 Metering Plan Spreadsheet.

PROJECTED PERFORMANCE

Minimal funding is available for dedicated metering during FY 2014. Efforts will continue on establishing communications with the UMS. Metering for HPSB candidates is still a concern for the plant. This issue prevents adequate monitoring of energy for the required 20% reduction.

It is also impacting required reporting of power utilization effectiveness (PUE) on the plant data centers. Efforts will continue to identify funding to install electric meters for HPSB candidates as well as electric, chilled water, and steam metering for the data centers.

ELECTRICITY METERING

Install electricity meters on individual buildings or processes at each site so these individually metered buildings and processes account for at least 75% of the sites total electricity use by October 1, 2011, working toward a goal of 90% by October 1, 2012.

During FY 2012, Y-12 received funding for meter installations from the Energy Modernization Implementation Program (EMIP). With this funding, the site was able to install 76 new meters and connect numerous other existing meters to the UMS. This effort has aided the site in developing an energy management system and enabling electronic monthly meter data. During FY 2013, previously installed meters were connected to the UMS. The electricity metering goals are shown in Table 2.8. If additional funding is identified, meter installations for FY 2014 will include HPSB candidate facilities and the main data centers at Y-12.

Once HPSB facilities are completed, Y-12 will evaluate the remaining facilities and determine the appropriate path forward for additional meter installations. This plan will be developed in concert with the Master Site Plan and Ten Year Site Plan to ensure facilities are on the enduring facility list and to verify if metering is cost effective.

During FY 2014, Y-12 will coordinate with Oak Ridge Utility District to install facility-specific electric meters at the Central Training Facility. This will allow for energy conservation M&V and aid in furthering the HPSB effort. These facilities are included in the FY 2014 Metering Plan Spreadsheet.

Table 2.8. Electric metering fiscal year comparison

		Standard Meters			Advanced Meters			Total		
Fiscal Year	# of "Appropriate" Buildings Per EPAct 2005	# of Buildings with Standard Meters	Estimated Amount of Purchased Electricity Metered (kWh/Yr)	Estimated Amount of On-site Generated Electricity Metered (kWh/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Electricity Metered (kWh/Yr)	Estimated Amount of On-site Generated Electricity Metered (kWh/Yr)	# of "Appropriate" Buildings with Dedicated Meters	Cumulative % of "Appropriate" Buildings Metered	Total % of Electricity Metered
2013 Report	76	15	5,376,984	0	34	187,922,644	0	49	64%	82.0%
2014 Planned	76	15	5,376,984	0	52	192,460,710	0	70	92%	84.0%
2015 Planned	76	10	1,338,880	0	66	203,963,100	0	76	100%	87.0%
2016 Planned	76	10	1,338,880	0	66	203,963,100	0	76	100%	87.0%

NATURAL GAS METERING

Install natural gas, steam, and chilled water meters on individual buildings or processes so these individually metered buildings and processes account for at least 10% of the site's natural gas, steam, and chilled water use by October 1, 2011 (10% for each utility) and 90% by October 1, 2015 (90% for each utility).

Natural gas is currently consumed in three production facilities, as well as the Y-12 Steam Plant. Meters are currently installed at the Station C reduction station on Bethel Valley Road, on each boiler within the steam plant, at 9204-02, and at Area 5 (provides combined readings for two facilities). This existing metering configuration surpasses the 10% and 90% requirements for EPAct05. However, the meters are not advanced, so the installation of advanced gas meters is desirable to meet the full intent of the goal. The natural gas metering goals are shown in Table 2.9. Current plans include installation of an advanced gas meter at the Steam Plant to capture total consumption, as well as at each separately identified facility. Natural gas is separately metered at the Central Training Facility. Meter counts are included in the FY 2014 Metering Plan Spreadsheet and included in the following data.

Table 2.9. Natural Gas metering fiscal year comparison

		Standard Meters			Advanced Meters			Total		
Fiscal Year	# of "Appropriate" Buildings Per EPAct 2005	# of Buildings with Standard Meters	Estimated Amount of Purchased Natural Gas Metered (CF/Yr)	Estimated Amount of On-Site Generated Natural Gas Metered (CF/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Natural Gas Metered (CF/Yr)	Estimated Amount of On-Site Generated Natural Gas Metered (CF/Yr)	# of "Appropriate" Buildings with Dedicated Meters	Cumulative % of "Appropriate" Buildings Metered	Total % of Natural Gas Metered
2013 Report	4	3	465,961	0	1	691,528	0	4.0	100.0%	100%
2014 Planned	4	3	465,961	0	1	691,528	0	4.0	100.0%	100%
2015 Planned	4	0	0	0	4	1,157,489	0	4.0	100.0%	100%
2016 Planned	4	0	0	0	4	1,157,489	0	4.0	100.0%	100%

**Standard meter at point of service measures all Natural Gas*

STEAM METERING

Steam is vital to the operation of the Y-12 Complex. It is the primary source of building heat, both for personnel comfort and for equipment freeze protection. Freeze protection includes protection of critical services, such as fire systems and heat tracing of outdoor above-ground water systems. Other uses of steam in support of the production mission include the regeneration of dehumidification systems and the operation of steam-powered ejectors. Y-12 generates steam on-site from the natural gas fired steam plant (9401-07); the site does not separately purchase steam from a commercial utility district. As a result, there is no cost involved with steam other than from natural gas and fuel oil. However, the site realizes that some savings can be achieved from steam production by understanding the consumption and implementing potential energy saving initiatives.

Meters are currently installed at two end user locations and in the steam plant. When considering new applications, it will be noted that some facilities have a pass-through installation from other facilities. This significantly complicates the ability to separately meter some areas. As the site continues analyzing the system, focus will be on installation of steam meters to comply with the 2015 goals (Table 2.10). The recently implemented contract for the ESPC delivery order #3 will significantly modify the current steam distribution system. Once this effort is completed, future metering will be evaluated against the resulting installation. Only those facilities determined to be enduring will be considered for meters.

Table 2.10. Steam metering fiscal year comparison

		Standard Meters			Advanced Meters			Total		
Fiscal Year	# of "Appropriate" Buildings Per EPAct 2005	# of Buildings with Standard Meters	Estimated Amount of Purchased Steam Metered (Btu/Yr)	Estimated \ Amount of On-Site Generated Steam (Btu/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Steam Metered (Btu/Yr)	Estimated Amount of On-Site Generated Steam Metered (Btu/Yr)	# of "Appropriate" Buildings with Dedicated Meters	Cumulative % of "Appropriate" Buildings Metered	Total % of Steam Metered
2013 Report	15	2	0	55,222,405,862	0	0	0	2.0	13.3%	5%
2014 Planned	15	2	0	55,222,405,862	0	0	0	2.0	13.3%	5%
2015 Planned	15	2	0	55,222,405,862	13	0	697,744,249,614	15.0	100.0%	63%
2016 Planned	15	2	0	55,222,405,862	13	0	697,744,249,614	15.0	100.0%	63%

**Appropriate buildings, as defined by the calculation spreadsheet, does not necessarily correspond to the site requirement to install meters. In many cases, although not cost effective as determined by the calculation, it is in the best interest of the site to install meters.*

POTABLE WATER METERING

Y-12's potable water system supplies sanitary water to numerous Y-12 facilities. The potable water system supports:

- fire protection systems, including sprinkler systems and fire hydrants, and emergency fire-fighting water storage;
- sanitary water systems, including emergency showers and eyewash stations, personnel decontamination facilities, drinking fountains, restrooms, changehouses, and the cafeteria;
- process water systems, including feedwater for the steam plant and demineralizer, makeup water for cooling towers, process cooling, cleaning and decontamination systems, chemical makeup systems, laboratories, and other miscellaneous needs; and
- 16-in. emergency backup water feed for ORNL.

Meters are installed on the potable water tanks and on various facilities within the plant. Future metering will include advanced meter installations for all enduring facilities as applicable to comply with the 2015 goal (Table 2.11). Additionally, new advanced meters will be installed on the potable water tanks, as the existing meters are flow meters, rather than totalizing meters.

Table 2.11 Potable water metering fiscal year comparison

		Standard Meters			Advanced Meters			Total		
Fiscal Year	# of "Appropriate" Buildings Per EPAct 2005	# of Buildings with Standard Meters	Estimated Amount of Purchased Water Metered (Gal/Yr)	Estimated Amount of On-Site Generated Water Metered (Gal/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Water Metered (Gal/Yr)	Estimated Amount of On-Site Generated Water Metered (Gal/Yr)	# of "Appropriate" Buildings with Dedicated Meters	Cumulative % of "Appropriate" Buildings Metered	Total % of Potable Water Metered
2013 Report	39	4	13,528,718	0	2	27,976,615	0	7.0	18%	5%
2014 Planned	39	4	13,528,718	0	2	27,976,615	0	7.0	18%	5%
2015 Planned	39	4	13,528,718	0	11	318,110,296	0	16.0	41%	40%
2016 Planned	39	4	13,528,718	0	22	654,334,195	0	27.0	69%	81%

**Appropriate buildings, as defined by the calculation spreadsheet, does not necessarily correspond to the site requirement to install meters. In many cases, although not cost effective as determined by the calculation, it is in the best interest of the site to install meters.*

CHILLED WATER METERING

Y-12 has many functional needs for chilled water, including: air-conditioning and dehumidification systems required for maintaining environmental conditions (i.e., temperatures and humidity) within production facilities, including precision machine shops, low-humidity areas, inspection areas, and general manufacturing facilities; process cooling applications, including air compressor aftercoolers, ultrasonic cleaners, spindle air, and machine tool coolant systems; and conventional air-conditioning for offices, laboratories, and other support facilities. There have previously been no attempts to capture or monitor total chilled water generated or amounts distributed to facilities. Btu meters are currently installed in Buildings 9767-08, 9767-10, 9767-11, 9767-12, 9767-13, and 9720-82 but do not capture all output from the facilities. Additional Btu meters are planned for chiller buildings, production buildings, and other known large consumers of chilled water (Table 2.12).

Table 2.12. Chilled Water metering fiscal year comparison

		Standard Meters			Advanced Meters			Total		
Fiscal Year	# of "Appropriate" Buildings Per EPAct 2005	# of Buildings with Standard Meters	Estimated Amount of Purchased Chilled Water Metered (Gal/Yr)	Estimated Amount of On-Site Generated Chilled Water Metered (Gal/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Chilled Water Metered (Gal/Yr)	Estimated Amount of On-Site Generated Chilled Water Metered (Gal/Yr)	# of "Appropriate" Buildings with Dedicated Meters	Cumulative % of "Appropriate" Buildings Metered	Total % of Chilled Water Metered
2013 Report	19	0	0	0	6	0	**	6.0	32%	0%
2014 Planned	19	0	0	0	6	0	**	6.0	32%	0%
2015 Planned	19	0	0	0	14	0	36,353,916,165	14.0	74%	8%
2016 Planned	19	0	0	0	16	0	80,168,905,204	16.0	84%	19%

*** Currently installed Btu meters are located at the chilled water generation building and monitor total output, not building specific.*

DATA CENTERS

Independently meter 40% of agency data centers by October 1, 2011, working toward a goal of 100% by October 1, 2015.

Y-12 has three main on-site data centers. They were not completed with EMIP funding as originally anticipated, but are both on the priority list for installation if funding can be identified.

2.4. COOL ROOFS

The Y-12 Site is meeting the requirements for cool roof implementation. Since 2002, more than $41M of Y-12 funding has been invested in roofing replacements, which has resulted in more than 28 acres of new roofing across the Y-12 Complex (Figs. 2.4 and 2.5). This has increased the average remaining roof life to above 10 years for the 3.1M square foot roofing portfolio. Y-12 has eliminated approximately 130 of 225 CAIS deficiencies that resulted in the retirement of more than $48M in Deferred Maintenance reduction across the site.

The cool roof technology began full implementation at Y-12 in FY 2008, and all future roof replacements will use this roofing technique where practicable and economically feasible.

PERFORMANCE STATUS

Most roofing replacement work at Y-12 was performed under the Roof Asset Management Program. Y-12 investments in roofing have resulted in more than 28 acres of new roofing across the complex; 18% of Y-12's total roof areas consist of cool roof applications, with additional cool roof projects being implemented as funding becomes available.

In FY 2013, cool roof installation of 19,885 ft^2 was completed on Building 9114. Facilities at the Central Training Facility have not been evaluated for Cool Roof Applications, but will be included in assessments during FY 2014. The buildings in Table 2.13 show the current status of cool roofs at Y-12.

Fig. 2.4. 9204-02E cool roof installation.

Fig. 2.5. 9103 cool roof installation.

Table 2.13. Cool roof status

Property ID	Property Name	Total Projected Area	Cool Roof Reflective Area	Total Cool Roof Area	Cool Roof Percent Complete
9720-82	Storage Building	113,428	111,414	111,414	100%
9212	Production	204,696	95,300	95,300	60%
9204-02E	Production	66,869	56,311	56,311	84%
9201-01	Production	144,228	53,880	53,880	75%
9998	Production	49,190	48,300	48,300	100%
9215	Production	45,900	45,900	45,900	100%
9201-03	Maintenance Facility	70,582	41,549	41,549	58%
9103	Central Computing Facility	39,288	38,291	38,291	97%
9201-05W	Machine Shop	40,495	35,325	35,325	70%
9113	Office Building	21,021	21,021	21,021	100%
9114	Office Building	19,885	19,885	19,885	100%
9117	Central Computing Facility	19,648	19,648	19,648	100%
9401-07	Steam Plant	19,764	19,200	19,200	100%
9119	Office Building	18,345	18,345	18,345	100%
9202	Labs & Offices	69,021	17,703	17,703	87%
9733-05	Office Building	13,322	13,322	13,322	100%
9203	Labs & Offices	26,208	13,060	13,060	49%
9225-03	Production	9,260	9,260	9,260	100%
9712-01S	South Garage Bay	9,240	9,240	9,240	100%
9712-01N	North Garage Bay	8,750	8,750	8,750	100%
9723-34	Changehouse	6,700	6,700	6,700	100%

PROJECTED PERFORMANCE

As indicated in Table 2.14, there are approximately 16 additional buildings that have been identified as out-year candidates for cool roofs as funding becomes available in the future. Currently there is no funding for cool roof installations in FY 2014.

2.5 HIGH PERFORMANCE AND SUSTAINABLE BUILDINGS

Successful achievement of the Guiding Principles and High Performance Sustainable Building goals are contingent on sufficient funding and resources to implement identified projects. At Y-12, candidate buildings that could meet the Guiding Principles are aged and approaching end of

Table 2.14. Candidate cool roof replacements

Property ID	Building GSF	Total Roof Projected Area (GSF)	Reflective Area (GSF)
9202	157,228	20,200	5,600
9203	31,107	26,208	4,643
9201-03	191,978	70,582	41,549
9201-01	270,988	140,145	2,516
9201-5W	70,005	45,099	3,170
9105	7,667	4,362	4,362
9202	157,228	69,121	6,566
9710-02	27,673	19,191	3,640
9404-10	3,380	3,334	3,334
9995	95,373	44,796	1,595
9727-04	1,752	1,752	2,801
9723-25	18,974	18,974	7,956
9815	1,752	1,722	695
9204-02	324,085	324,085	6,384
9616-07	26,054	26,054	2,180
9212	442,317	442,317	1,379

life, and although projects are identified for the buildings, the effort is beyond current funding levels.

Incremental steps will be taken each fiscal year to incorporate sustainability replacements into the budget profile. Unless a definitive funding source is identified, it is doubtful that Y-12 will achieve the FY 2015 targets as identified.

PERFORMANCE STATUS

With the inclusion of the Central Training Facility, 101 buildings are identified in FIMS that meet the 5,000 GSF and enduring status. This includes three facilities from the Central Training Facility and five off-site leased facilities. Compliance with the 15% building count requirement indicates that 15 buildings must be targeted for HPSB compliance (Table 2.15). The site currently has one Leadership in Energy and Environmental Design (LEED) facility and one that has met the HPSB criteria. A full HPSB assessment has not been completed on the Central Training Facility. At present, these are not included in the candidate facilities listing identified in Table 2.15.

All facility data has been entered into the Portfolio Manager and guiding principle points and energy data are tracked monthly, and Y-12 has identified buildings for the best application of the Guiding Principles. Y-12 will continue to assess and incorporate renovations in enduring buildings to reach 100% Guiding Principle compliance. Previous initiatives that contributed to the sustainability of facilities and aided in progress toward achieving the Guiding Principles include the following:

- Energy reduction initiatives in the Jack Case Center;
- Retro-commissioning and HVAC improvements in Buildings 9201-03 and 9201-05N;
- Chiller efficiency improvements 9767-8/11/13;
- Reconnecting of HVAC controls to Utility Management System;
- Off-shift temperature setbacks;
- Steam trap replacements;
- Lighting fixture upgrades;
- Advanced meter installations; and
- Low-flow fixture installation 9113/9119.

Table 2.15. Planned HPSB candidate facilities

Property ID	Property Name	GSF	Sustainability Target Compliance Year
301 BCR	Jack Case Office Building	411,837	HPSB completed 2012
602 SCA	New Hope Center	137,758	LEED Certified 2007
9712-01	Garage Facility (3 FIMS records)	24,517	2015
9733-05	Office Building	13,322	2015
9720-82	Storage Building	153,001	2015
9712-01N	North Garage Bay	8,700	TBD
9712-01S	South Garage Bay	7,426	TBD
9103	Central Computing Facility	110,248	TBD
9119	Office Building	73,381	TBD
9113	Office Building	59,299	TBD
9114	Office Building	36,901	TBD
9117	Central Computing Facility	19,648	TBD
9115	Office Building	16,415	TBD
9116	Office Building	16,415	TBD
9106	Offices	16,272	TBD
9109	Offices	9,788	TBD
9710-03	Guard Headquarters	41,496	TBD

As additional funding is identified, the site will continue to make progress toward the 2015 goal and implement improvements to the facilities.

PROJECTED PERFORMANCE

The site has to meet HPSB criteria in 15 buildings to meet the FY 2015 goal. Y-12 is incorporating cost-effective, innovative building strategies, such as cool roofs, low-flow fixtures, advanced metering, and energy audits, to reduce the consumption of energy, water, and materials. Planned activities include replacing outdated equipment and furnishings, upgrading to energy-efficient and sustainable building components, and updating obsolete equipment to current technology. Although identified projects are above FY 2014/2015 baseline budgets, the site will continue to execute energy projects as funding becomes available or as they can be accomplished incrementally within existing funding profiles. The ESPC delivery order #3 includes a plant-wide lighting replacement. This effort will provide much-needed replacements and occupant sensors in many HPSB candidate facilities. Table 2.16 provides a listing of planned projects, with a target year of 2015, for identified HPSB candidate facilities and an estimated cost for implementation.

Table 2.16. HPSB candidate facilities project listing

Project	Estimate
9712-01	
Complete repairs to HVAC unit	$10,000
Hands-free fixtures sinks	$4,365
New toilets/urinals with hands-free flush valves	$3,605
New energy-efficient lighting fixtures	$31,415
Install occupancy sensors in offices and common areas	$5,100
Install meters as needed	$20,687
Preventative/Miscellaneous Corrective Maintenance	$20,000
9733-05	
Replace VAV controllers and valves	$5,513
Hands-free fixtures sinks	$3,090
New water-saving urinals	$2,300
New water-saving toilets	$10,350
New hands-free flush valves for urinals/toilets	$4,120
New energy-efficient lighting fixtures	$47,679
Install occupancy sensors in offices and common areas	$13,260
Repair meter	$5,000
Install canopy over west entrance door	$6,650
9720-82	
Replace quartz halogen lamps with LED lamps	$50,000
9103	
New HVAC units SEER 13	$372,000
Install new white roof	$79,552
Hands-free fixtures sinks	$17,510
New water-saving urinals	$10,350
New water-saving toilets	$55,200
New energy-efficient lighting fixtures	$253,324
Install occupancy sensors in offices and common areas	$51,000
Replace carpet with tile	$97,658
Paint interior surfaces	$121,667
Install meters as needed	$41,374
Install new windows	$108,625
9119	
Upgrade elevator controls	$19,000
New HVAC units SEER 13	$496,000
Install new white roof	$39,258
New water-saving urinals	$13,800
New water-saving toilets	$48,300
New energy-efficient lighting fixtures	$220,795
Install occupancy sensors in offices and common areas	$51,000

Project	Estimate
Replace carpet with tile	$625,685
Paint interior surfaces	$247,772
Install meters as needed	$0
Install new windows	$214,880
9113	
Upgrade elevator controls	$9,500
New HVAC units SEER 13	$372,000
Install new white roof	$0
New water-saving urinals	$13,800
New water-saving toilets	$48,300
New energy-efficient lighting fixtures	$130,784
Install occupancy sensors in offices and common areas	$30,600
Replace carpet with tile	$290,820
Paint interior surfaces	$212,187
Install meters as needed	$0
Install new windows	$197,500
9114	
New HVAC units SEER 13	$124,000
Install new white roof	$39,485
Hands-free fixtures sinks	$4,635
New water-saving urinals	$1,150
New water-saving toilets	$8,625
New hands-free flush valves for urinals/toilets	$3,090
New energy-efficient lighting fixtures	$131,452
Install occupancy sensors in offices and common areas	$35,700
Replace carpet with tile	$79,243
Paint interior surfaces	$141,133
Install meters as needed	$20,687
Install new windows	$120,080

Project	Estimate
9117	
New HVAC units SEER 13	$37,875
Hands-free fixtures sinks	$4,635
New water-saving urinals	$2,300
New water-saving toilets	$10,350
New energy-efficient lighting fixtures	$23,171
Install occupancy sensors in offices and common areas	$4,080
Paint interior surfaces	$54,507
Install meters as needed	$20,687
Install new windows	$9,480
9115	
New HVAC units SEER 13	$94,600
Install new white roof	$17,565
Hands-free fixtures sinks	$6,180
New water-saving urinals	$2,300
New water-saving toilets	$13,800
New energy-efficient lighting fixtures	$41,218
Install occupancy sensors in offices and common areas	$10,200
Paint interior surfaces	$98,998
Install new windows	$20,540
9116	
New HVAC units SEER 13	$94,600
Install new white roof	$17,565
Hands-free fixtures sinks	$6,180
New water-saving urinals	$2,300
New water-saving toilets	$13,800
New energy-efficient lighting fixtures	$38,544
Install occupancy sensors in offices and common areas	$10,200
Replace carpet with tile	$73,060

Project	Estimate
Paint interior surfaces	$98,998
Install new windows	$18,960
9106	
Install new white roof	$18,036
Hands-free fixtures sinks	$6,695
New water-saving urinals	$2,300
New water-saving toilets	$15,525
New energy-efficient lighting fixtures	$50,798
Install occupancy sensors in offices and common areas	$10,200
Replace carpet with tile	$12,987
Paint interior surfaces	$78,086
Install new windows	$9,480
9109	
New HVAC units SEER 13	$60,600
Install new white roof	$10,473
Hands-free fixtures sinks	$5,150
New water-saving urinals	$2,300
New water-saving toilets	$12,075
New energy-efficient lighting fixtures	$30,7464
Install occupancy sensors in offices and common areas	$7,140
Replace carpet with tile	$20,000
Paint interior surfaces	$49,367
Install new windows	$14,220
9710-03	
New HVAC units SEER 13	$372,000
Install new white roof	$48,304
Hands-free fixtures sinks	$7,725
New water saving urinals	$8,050
New water saving toilets	$20,700
New energy-efficient lighting fixtures	$68,177
Install occupancy sensors in offices and common areas	$9,180
Replace carpet with tile	$10,656
Paint interior surfaces	$98,579
Install meters as needed	$41,374
Install new windows	$71,495

2.6 SITE SUSTAINABILITY POLICIES AND PROCEDURES

Several site-wide policies and implementing procedures are used for Guiding Principle compliance. Table 2.17 lists these documents and the associated Guiding Principle.

Table 2.17. Site-wide Policies for Guiding Principles

Site-wide Policies and Procedures	
Guiding Principle	**Site Policy**
Sustainable Acquisition; Low-emitting Materials; Water Efficient Products; Recycled Content; Biobased Content; Environmentally Preferable Products; Ozone Depleting Compounds	Y77-938PD, Environmentally Preferable Purchasing Program Description Y-12 Terms and Conditions Attachment G, Recycled-Content Materials and Products, and Biobased Materials
Moisture Control Policy	Y/IA-441, Building Managers Handbook
Integrated Pest Management	Y/IA-441, Building Managers Handbook
Energy Efficiency; Sustainable Acquisition; Low-emitting Materials; Water Efficient Products; Recycled Content; Biobased Content; Environmentally Preferable Products; Ozone Depleting Compounds	Y-71-100PD, Environmental Management Policy
Storm Water Plan	Y71-050, Y-12 Storm Water Pollution Prevention and Requirement
Smoking Policy	Y12-024, Smoking Policy

Site-wide Policies and Procedures	
Sustainable Design, Energy Efficiency, Water Consumption, Pollution Prevention, Recycle/ Reuse	Y72-001, Environment, Safety and Health Policy
Pollution Prevention; Waste & Materials Management; Recycled Content	Y77-311, Y-12 Pollution Prevention Program Implementation
Recycled content; Waste & Materials Management	Y77-177, Y-12 Complex-wide Recycling
HPSB principles in design documents	Y30-608, Budget Formulation and Submission
Over-arching Design Requirements	
Guiding Principle	**Policy**
HPSB principles includes in CD design packages	DOE O 413.3B, Program and Project Management for the Acquisition of Capital Assets
Energy efficiency and Sustainable Design elements	DOE O 436.1, Departmental Sustainability

2.7 NEW CONSTRUCTION

NET-ZERO-ENERGY FACILITIES

In accordance with Executive Order 13514, sites shall "beginning in 2020 and thereafter, ensure that all new Federal buildings that enter the planning process are designed to achieve zero-net-energy by 2030." Several facilities are in the early planning stages and are impacted by this requirement. The site will include this initiative into the planning documents and will evaluate the cost-effectiveness of including renewable energy to off-set energy consumption. Due to the future uncertainty in the cost of commodities, renewable technology, and facility specifics, it is impossible to know what impact this requirement will have. As a site, Y-12 is aware of the requirement and is moving toward implementation. New facilities identified for planning during this timeframe include the following projects:

- Maintenance complex
- Non-MAA Storage
- Shipping/Receiving warehouse
- Consolidated Manufacturing Complex

The Central Training Facility has not been evaluated for a renewable energy project. It is possible that a net-zero-energy facility could be identified at that location.

URANIUM PROCESSING FACILITY

UPF is an integral part of the long-range transformation plan of the Y-12 National Security Complex to consolidate and enhance production operations. The UPF project is committed to sustainable design strategies not only to meet HPSB requirements, but also to incorporate LEED as a means of monitoring the achievement of the sustainable goals for the project. The current scope of the UPF project is based on LEED New Construction (NC) v2.2 and to be "self-verified" with a goal of achieving enough LEED credits to gain a self-verified LEED Silver rating. Upgrading the project sustainable goals to LEED 2009 and pursuing actual certification by the U.S. Green Building Council is being considered. This would enable the UPF project sustainable goals to align more closely with the sustainability goals for the Y-12 site.

PERFORMANCE STATUS

An integrated project team representing architecture, engineering, construction, procurement, and project management has been established. Team members with HPSB experience, including a LEED accredited professional, have identified LEED credits that could be pursued for the UPF project that would also support HPSB Guiding Principles. The sustainable goals for the UPF project have been documented on a separate LEED scorecard for the administration building, production support facility (PSF), and the UPF main building to record the LEED prerequisites that will be achieved and the LEED credits that will be pursued for each building.

The project team identified and incorporated cost-effective life-cycle energy, water, materials, site, and indoor environmental quality principles into the design and will track and maintain these features throughout construction and life of the complex. The production and maintenance of a 3-D Building Information Management (BIM) model for the project is instrumental for project planning, integration, and design.

PROJECTED PERFORMANCE

The UPF complex will include innovative design features to reduce and improve energy efficiency beyond requirements of current energy codes. Insulation provided for external walls and roofs will exceed minimum requirements. Reflective roofing materials will be used to reduce the heat-island effect. Highly efficient windows for fenestration will exceed requirements for solar heat-gain reduction and overall heat-transfer coefficients. Heating and cooling loads will be reduced by incorporating these features and providing an efficient building envelope. Windows with sunshades and light shelves and highly efficient insulated skylights will be used to bring natural light into the occupied spaces and reduce the interior lighting load. Low power-consuming LED and/or fluorescent lighting will also be incorporated to further reduce the amount of energy required for lighting interior spaces. LED task lighting controlled by occupancy sensors will be provided at all gloveboxes to further optimize energy performance. The HVAC systems will use high-efficiency fan motors and variable speed drives to reduce energy consumption. The HVAC systems selected for the UPF complex will eliminate emission compounds that contribute to ozone depletion and global warming. Waste heat from the instrument air compressors will be used to supplement heating the PSF.

Landscaped areas at the administration building will include native and climate-tolerant plants and be mulched to conserve moisture by preventing evaporative water loss. Landscaping is not planned for the PSF and main UPF building due to security concerns. Potable water will not be used to irrigate landscaping. The UPF project will employ strategies that will collectively reduce domestic water consumption by 37% for the PSF and 43% for the administration and main UPF buildings. Using efficient low-flow toilets and urinals throughout the entire complex will provide significant, long-term cost and environmental savings. Reducing the amount of potable water used will also decrease the amount of waste that enters the wastewater systems.

The UPF project will divert a minimum of 50% of construction waste from the landfill by reusing or recycling demolition debris and construction materials. Existing asphalt that will be demolished will be reused to pave the new access road and other areas around Y-12. Existing power poles to be demolished will be reused for new and temporary lighting. Reusing these materials on-site not only diverts waste from the landfill but also decreases the environmental impact of transporting the material off-site. Other construction waste, including packaging materials, will be recycled to the greatest extent possible. The 3-D BIM model may be used to help reduce and quantify construction waste.

The UPF project will maximize use of materials that reduce detrimental environmental effects, including using regional materials, bio-based materials that contain recycled content, and products made from rapidly renewable content when appropriate. Materials and finishes specified for interior use will be low or no volatile organic compound-emitting products, which will provide a safe, healthy, and productive environment. The 3-D BIM model will be used wherever possible to manage the environmental impact of materials.

The designated "Self-Verification Entity" will be made-up of qualified individuals with LEED AP credentials external to the project, such as NNSA, Office of Engineering and Construction Management personnel, and parent company staff. These individuals shall perform the LEED self-verification by utilizing LEED NC v2.2 submittal templates and supplemental documentation of each LEED prerequisite and LEED credit, to determine the level of LEED rating achieved and to record evidence of completion of the HPSB Guiding Principles.

2.8 REGIONAL AND LOCAL PLANNING

Participation in regional transportation planning, recognition of existing community transportation infrastructure, and incorporation of such efforts into site policy and guidance documents.

The vast majority of Y-12's employees and subcontractors who report to work on-site each day commute from more than 20 surrounding counties making sustainable, safe transportation a significant concern. In fact, the average employee commute is 38 miles. Various governments and other stakeholders of the Knoxville metropolitan area, which includes Oak Ridge, have embarked upon several transportation planning initiatives in recent years. As one of the largest employers in the region and having such a high volume of commuters, Y-12 has been actively engaged in the following initiatives:

- participated in the development of the Knoxville Regional Transit Development Plan to ensure the capture and inclusion of Y-12's needs;
- participated and endorsed the Oak Ridge Energy Corridor and its initiative to establish an electric vehicle charging station for potential use by Y-12 commuters; and
- participates in East Tennessee Sustainability Initiative, now known as PlanET, a regional partnership of communities (five counties, sixteen cities, four towns and rural areas) building a shared direction for the future that protects valuable resources and addresses challenges regarding jobs, housing, transportation, a clean environment, and community health.

Y-12 is actively engaged in and promotes the PlanET process. Simultaneously, Y-12 is continuously working with the City of Oak Ridge mayor, engineers, and police to make sustainable transportation improvements for employees in the immediate vicinity of the site. Discussion topics and future possibilities have included improvements to Scarboro Road and state Highway 95 for traffic and speed control and improved connectivity between Y-12 and the City of Oak Ridge for pedestrian and bicycle traffic.

Y-12 supported the completion of the City of Oak Ridge's application for the TVA Sustainable Communities Certification Program. In September 2013, TVA designated Oak Ridge as a Platinum Level Sustainable Community in the new Valley Sustainable Communities Program. This designation will enhance the City's competitiveness for new investments and jobs when companies are looking to expand existing operations or open new facilities.

Also, Y-12 has taken steps on site to encourage sustainable transportation. Some examples of these initiatives include:

- widening and generally improving bicycle paths on-site to encourage bicycle commuting;
- improving on-site taxi service to encourage employees to leave their personal cars parked for the day, thus reducing emissions by consolidating riders and limiting vehicles in use;
- updating the Y-12 vehicle fleet to include more E-85 vehicles, electric vehicles, and a 25 passenger diesel-electric hybrid bus;
- initiating a ride-sharing program with bulletin boards for riders/drivers to establish their own sharing arrangements;
- partnering with the University of Tennessee Center for Transportation Research to use the Tennessee Vans Program that offers vans for lease to public agencies and nonprofits for statewide travel; and
- encouraging employee participation in Smart Trips, a local organization that promotes alternatives to driving alone to work.

Y-12 is committed to the regional and local planning efforts to increasing safe and sustainable transportation opportunities for the surrounding communities and its employees.

The Y-12 fleet is comprised of Agency-owned and U.S. General Services Administration sedans, light-duty trucks/vans, medium-duty trucks/vans, and heavy-duty trucks. To achieve the optimum fleet, Fleet Management has implemented a taxi service and increased utilization of the sign-out pool to manage on-site transportation at Y-12. Vehicles are used as tools to perform work and support the mission at Y-12. Fleet Management is evaluating the current fleet and will focus on efforts to right-size the fleet based on mission needs. In addition to the fleet size, petroleum and alternative fuel (E-85) usage is monitored to ensure executive orders are being met.

3.1 INCREASE IN ALTERNATIVE FUEL CONSUMPTION

Relative to the 2005 baseline for alternative fuel usage, Y-12 has already exceeded the goal.

PERFORMANCE STATUS

In light of the 2005 baseline for fuel consumption and alternative fuel use, the site has already achieved the 2020 goal for a 10% annual increase in alternative fuel use (Table 3.1). Since Y-12 acquired the Security Protective Force division in FY 2013, the alternative fuel use has increased. All light-duty patrol vehicles are E-85. Fleet Management is working closely with the Security organization to identify other opportunities for alternative fuel vehicles in the fleet.

Since the DOE prime subcontract was unable to fuel the light-duty patrol vehicles with E-85 for nine months in FY 2013, E-85 was not used 100% of the time in alternative fuel vehicles (AFVs). The subcontractor has been asked to notify Fleet Management when issues arise with E-85 fuel availability in the future.

PROJECTED PERFORMANCE

The fleet is projected to be at or above the current alternative fuel usage in the future.

3.2. DECREASE IN FLEET PETROLEUM CONSUMPTION

In accordance with the 2005 baseline of fuel usage, the site has exceeded the goal for petroleum reduction by 55.1%. Table 3.2 shows the Y-12 fuel statistic from the FAST Data Consistency Report. The 2012 data indicates that Y-12 has surpassed the 2% per year reduction through 2018.

PERFORMANCE STATUS

In FY 2013 the Security Protective Force division was added to the fleet which increased the petroleum-dedicated vehicles by 19. In addition, the DOE prime subcontractor was unable to fuel the AFV patrol vehicles

Table 3.1. Alternative fleet usage statistics [gasoline gallon equivalent (GGE)]

2005 Baseline	2013 Data	% Increase/Decrease	E.O. 13423 Goal
10,700	40,177 GGE	275.5%	10%/Yr increase

Table 3.2. Y-12 fleet petroleum reduction statistics (GGE)

2005 Baseline	2013 Data	% Increase/Decrease	E.O. 13423 Goal
246,137	110,576 GGE	-55.1%	2%/Yr decrease

with E-85 due to the extended absence of a mobile fuel truck. These combined factors increased the site's petroleum consumption. However, the site still exceeded the petroleum reduction goal and continues to evaluate opportunities to reduce petroleum consumption.

Y-12 will continue to monitor vehicle usage and redistribute or remove vehicles from the fleet as needed. Replacement vehicle purchases will consider energy use in accordance with Sustainable Acquisition guidance and will be more fuel-efficient. Y-12 currently owns and operates four low-speed electric vehicles, including a charging station, and a twenty-five passenger diesel-electric hybrid bus.

As additional guidance becomes available, Y-12 will evaluate the existing fleet to identify further reductions. Additional goals are planned for continued progress in Fleet Management.

PROJECTED PERFORMANCE

The fleet is projected to be at or below the current petroleum consumption in the future.

3.3. ALTERNATIVE FUEL VEHICLE PURCHASES

PERFORMANCE STATUS

Y-12 has met the goal for 75% of vehicle purchases and is striving toward the 100% criteria where applicable. For FY 2013, Y-12 purchases consisted of 98% AFVs.

PROJECTED PERFORMANCE

Y-12 has established a replacement priority list for vehicles. A determination based on mission needs and vehicle usage is made as to whether to replace the vehicle with agency-owned vehicles or GSA-leased vehicles. AFVs will be used wherever possible when replacing vehicles.

3.4. REDUCE FLEET INVENTORY

NNSA's fleet reduction goal for FY 2012 and FY 2013 is 35% for the organization. Y-12 had a considerable reduction in FY 2012 and has maintained a questioning attitude toward vehicle requests in FY 2013. NNSA is submitting an aggregate fleet reduction report separate from the Site Sustainability Plan (SSP) which includes Y-12.

PERFORMANCE STATUS

Vehicles are continuously monitored and reassigned to different organizations based on utilization standards and mission needs (Fig. 3.1). With the addition of the Security Protective Force to the Y-12 inventory in FY 2013, vehicle utilization and the potential for further reductions are being examined.

Fig. 3.1. Fleet roadmap.

4.1. WATER USE EFFICIENCY AND MANAGEMENT

The FY 2013 water intensity reduction from baseline is reported as 47.1%. Y-12 is currently meeting the water intensity reduction goals and storm water initiatives. Y-12's reduction in water intensity exceeds the FY 2016 target of 16% as well as the FY 2026 target of 26%.

POTABLE WATER REDUCTION

All potable water consumed at Y-12 originates from Melton Hill Lake as raw water and is pumped across the ridge to the City of Oak Ridge water treatment plant, which is located within the Y-12 boundary. Y-12 purchases both potable and raw water from the city for all domestic and industrial applications.

A number of water conservation measures have been identified for the plant. These have resulted from both internal and Federal Energy Management Program assessments.

PERFORMANCE STATUS

Y-12 is currently exceeding both the 2016 and 2026 goals. By the end of FY 2013, the site has achieved a 47.1% reduction in potable water use since the baseline was established (Fig. 4.1). During FY 2013, the site noted a reduction of 13.7% over FY 2012 consumption. Actions that have contributed to the overall reduction in potable water use include:

- Steam Trap repairs and improvements;
- Condensate return repairs and reroutes (~10 million gallons/year);
- Stand-down of Buildings 9201-05, 9204-01, 9204-04, 9204-03, 9201-02 and 9401-03;
- Replacement of once-through air handling units (~5 million gallons saved/year); and
- Low-flow fixture installation (~660 K gallons saved/year).

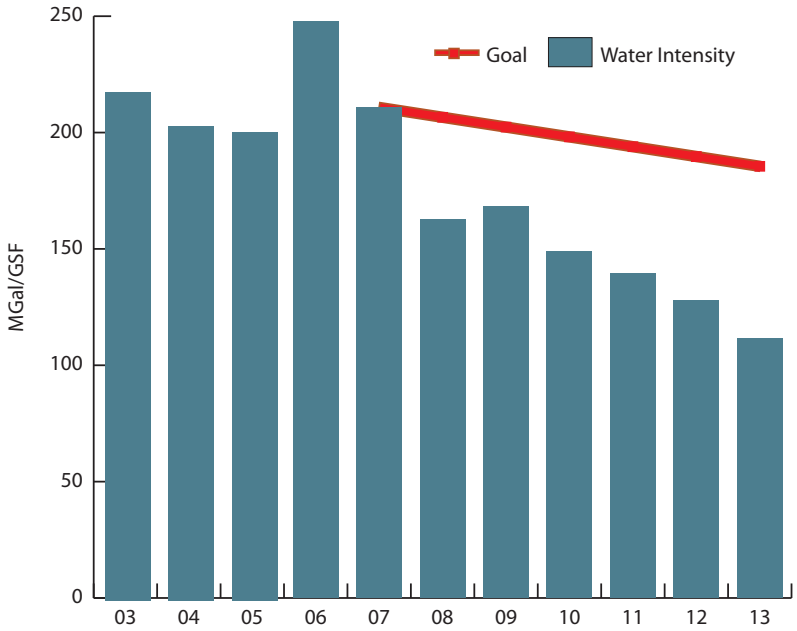

Fig. 4.1. Y-12 is currently meeting the water intensity reduction goals.

The Potable Water Management Plan is contained within the Utilities Migration Plan and is revised with the annual update to the plan. Most potable water is not metered at Y-12, but an evaluation based on known data, facility usage, and other factors provide an estimated assessment of the usage by facility type (Table 4.1).

Cooling towers, production facilities, and maintenance related activities comprise the largest consumers on the Y-12 site. Through the various ESPC and utility efficiency improvement initiatives, the site is seeing significant improvement in most of these areas. As future projects are implemented, additional savings will be realized.

Table 4.1. Potable water usage by facility type

Facility type	Percent of Total
Offices/Admin	9.41%
Security	.34%
Storage	2.66%
Production	12.16%
Cooling Towers	57.75%
Maintenance Shops	11.22%
Fire Station	.23%
Other Service Buildings	.54%
Labs	2.91%

STORM WATER PREVENTION

The Storm Water Pollution Prevention Plan (Y/TS-1180/R5) is Y-12's documentation of objectives contained in EISA 438. The plan contains best management practices, storm water pollution controls, and guidance. During the last few years, Y-12 has implemented several initiatives to reduce storm water runoff, creating green spaces, and installing pervious pavement.

- A new paved area for a training effort included a perimeter installation of #57 stone to reduce storm water runoff.
- During the site readiness phase of the UPF construction, a Faircloth Skimmer® was installed in Sediment Basin #1 (Fig. 4.2). The Faircloth Skimmer® surface drain floats on

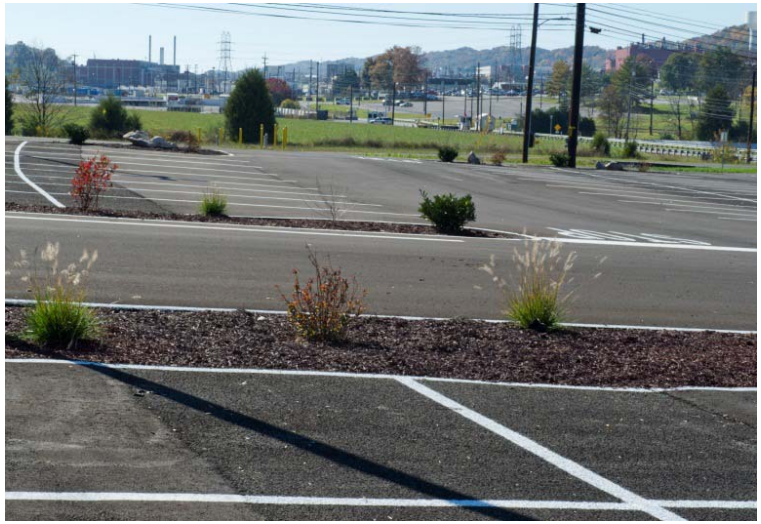

Fig. 4.2. (left) Faircloth Skimmer on UPF construction site. Fig. 4.3. (right) Pervious pavement and native planting contributes to EISA 438 requirements.

the surface of the sediment basin as it fills and drains, releasing the cleanest water in the basin instead of draining from the bottom as conventional outlets do. The skimmer drains the basin slowly over several days and at a constant rate to maximize settling.
- The parking lot at New Hope Center installed a 2012-featured pervious pavement (Fig.4.3). Additional efforts during the construction of the lot included removing the excess dirt from the new parking lot and backfilling over 'rubberized' concrete slabs.

In all, approximately 3.5 acres have been added to the green bank to offset for future projects within the Y-12 complex.

PROJECTED PERFORMANCE

Although the site has met this goal, significant reductions in water consumption can still be achieved through continued improvements within facilities, metering, and replacement of inefficient HVAC units. Continued reductions in water usage will be incorporated into ongoing facility repairs and renovations as funding becomes available. These efforts will include:

- Upgrading toilets and urinals to low-flow, hands-free units.
- Installing flow restrictors on faucets and shower heads.
- Repairing condenser loop connections so all condenser water is returned to the cooling towers.
- Replacing existing once-through water-cooled air conditioning system with air cooled equivalents.
- Installing advanced potable water meters.
- Repair 9212 condensate return.

Many of the domestic upgrades are identified in the Balance of Plant Plan for implementation on a building-by-building basis as funding allows. Similarly, many of the cooling tower upgrades are prioritized in the Utilities Migration Plan and will be evaluated accordingly for implementation as funding permits.

4.2 INDUSTRIAL, LANDSCAPE, AND AGRICULTURAL WATER

ILA water is considered to be non-potable freshwater used for aiding processes such as cooling, washing, and manufacturing or for irrigation and other uses. Based on this criteria, Y-12 does not consume ILA water.

PERFORMANCE STATUS

Jack Case and New Hope Centers are the only buildings at Y-12 that have an irrigation system. New Hope Center was constructed with a rainwater capture system for irrigation purposes. However, during periods of drought, the irrigation system is augmented by potable water.

The Jack Case Center uses potable water for all irrigation, with no augmentation of any type. During FY 2012, management requested a 50% reduction in potable water consumption for irrigation purposes. At this time, the system is not metered, so positive verification is unavailable.

PROJECTED PERFORMANCE

No additional efforts are planned for ILA water.

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The Y-12 Pollution Prevention (P2) program is designed and implemented to fully comply with state, federal, DOE, and NNSA requirements concerning pollution prevention, as well as to identify and assist with the implementation of sustainable, technically-feasible, and cost-effective pollution prevention activities.

The P2 program provides technical assistance to employees and organizations at the Y-12 Complex. This assistance includes identifying ways to eliminate waste streams; changing waste generator processes to reduce the volume or toxicity of waste streams; and segregating waste streams to allow for efficient reuse, recycle, or treatment for storage or disposal. The P2 program conducts Pollution Prevention Operational Assessments to evaluate site processes and operations for potential opportunities to apply P2 techniques to implement sustainable practices, conserve resources, and reduce waste generation.

Based on FY 2013 data, Y-12 has implemented more than 90 pollution prevention initiatives, with an anticipated reduction of more than 11.4 million pounds of waste and a projected cost avoidance of more than $1.5M.

Y-12's transformation efforts are expected to continue to have an overall positive impact on recycling and should ultimately reduce waste generation.

The P2 program has been integrated into construction and decontamination and decommissioning activities to ensure all materials are recycled or reused where possible. The P2 program reviews project waste management plans and National Environmental Policy Act checklists to ensure pollution prevention techniques, such as reuse/recycling and sustainable acquisition, are incorporated into each project.

Employee awareness is critical to the success of site pollution prevention efforts. P2 related articles are routinely posted on the Y-12 intranet site to inform employees of ongoing site and community activities and programs.

Initiation, expansion, or end of composting programs and the expected impact on waste stream.

Y-12 has investigated the availability of local off-site composting facilities. There is not a local off-site composting facility currently available. Following a study in 2011 on the volume of cafeteria food waste, it was determined that it is not feasible to establish an on-site composting facility due to the relatively small volume of material generated. Y-12 has instead focused on cafeteria food waste source reduction practices. In support of the source reduction focus, the Y-12 cafeteria has implemented methods to reduce the quantity of food waste generated.

Reducing printing paper use and acquiring uncoated printing and writing paper containing at least 30% post-consumer fiber.

Y-12 is continuing efforts to reduce paper usage, and has reduced printing paper purchases by 10% since FY 2008. Y-12 purchases paper

with at least 30% post-consumer fiber in support of sustainable acquisition requirements. New printers that are purchased must meet printer standards established by the Desktop Computing Resource Management Council (DCRMC). The DCRMC approved printers have duplex printing capabilities. Y-12 is taking steps to reduce the need to use paper where possible, and is continuing to expand the use of digital signatures to improve processing time for commonly used documents/forms.

The Wireless Paperless Mobile Worker (WPMW) Program objectives include enabling Y-12 to meet ongoing information needs of individual organizations by providing cost and process improvements to the efficient electronic exchange of data in real time or near real time while using mobile devices. The Program also enables organizations to readily select from available and approved mobile worker devices and applications that best fit their business requirements for data collection. In FY 2013, WPMW activities included prototype inventory systems utilizing radio frequency identification (RFID) technology and the implementation of tablet use for the completion of facility round sheets in place of paper round sheets. The MPMW activities support paper reduction efforts while improving efficiency.

Increasing use of acceptable non-toxic or less toxic alternative chemicals and processes while minimizing acquisition of hazardous chemicals and materials.

The Generator Services group provides a material disposition management service for generators at Y-12 which includes the technical support aspect to assist generators with a determination of whether or not the materials can be recycled, excessed, or reused rather than determining that all materials received must be declared as a waste. Generator Services can be used by any department or generator at Y-12.

During FY 2013, Generator Services personnel reused various materials that were considered as excess rather than declaring the materials as waste. Additionally, the Generator Services personnel provided excess materials and chemicals for reuse to various other organizations at Y-12. Y-12 has also completed various other reduce/reuse initiatives that have reduced the acquisition of hazardous chemicals, such as filtering a material so it could be reused in the process and modifying analytical methods to reduce the volume of hazardous reagents used.

Personnel continued focusing on activities to enhance the current chemical management system including revamping procedures (i.e., Hazardous Chemical Storage and Management of Time Sensitive Materials) and training (i.e., updated Hazardous Communication Training to include required information related to Global Harmonization Standard) to ensure consistency across the complex. Y-12 is continuing to assess changes to enhance the site-wide HMIS to provide the complex with a more robust system to be able to track chemicals, which in turn supports the goals of being able to target specific toxic chemicals for reduction. The Y-12 chemical management team continued using recommendations from the FY 2012 Lean Value Stream Mapping event with special emphasis on reducing inventories (i.e., removal of article/exempted items from inventory), information quality (i.e., instituted additional quality assurance checks on hazardous material information entered into the system), and improved control on procurement of hazardous materials. The Y-12 chemical management team continued the evaluation of wireless RFID technology which, if approved, will ensure greater accuracy in hazardous materials inventories.

The Complex has established mechanisms for internal and external transfers of chemicals for reuse in order to minimize the quantity of chemicals acquired, used, and disposed of. The Product Exchange system provides a means for employees to post information concerning excess chemicals that are available for on-site reuse.

Integration of pest management and landscape management practices.

Y-12 has an integrated grounds pest management program to manage specific insects, such as wasps. Pest management within buildings is managed by the building managers to ensure each facility's needs are met.

In FY 2013, birdhouses were installed along the boundary of the 3 acre native grass area located south of the New Hope Center (Fig. 5.1).

Fig.5.1. Birdhouses were installed near New Hope Center.

The birdhouses serve as a guide to indicate the mowing edges of the protected native grass area. The native grass area is only mowed once per year. The birdhouses also provide nesting areas for bluebirds and tree swallows. The birds serve as a form of integrated pest management by helping to reduce the population of nuisance insects, such as mosquitos, in this area. The birdhouses were also placed near one of the main entry portals to help control the mosquito population.

Clearance of property procedures.

Y-12 has completed an evaluation of its clearance of property procedures for disposition of excess materials. As a result of the evaluation, Y-12 has implemented continuous improvement activities, such as a "Stuff I Want to Get Rid of" website and a central telephone number (574-JUNK), to provide employees easy access to information and assistance related to the proper methods for disposing of excess materials.

5.1 SOLID WASTE

At Y-12, unneeded materials are not automatically assumed to be wastes requiring disposal. Y-12 uses a systematic disposition evaluation process. The first step in the disposition process is to determine if the items can be reused at Y-12. Items that cannot be used at Y-12 are evaluated for use at other DOE facilities or government agencies. Items are then evaluated for potential sale, recycle, or, as a last resort, disposal as waste. There is not a waste-to-energy facility for non-hazardous solid municipal or construction and demolition waste in Tennessee.

PERFORMANCE STATUS

Diverting at least 50% of non-hazardous solid waste, excluding construction and demolition debris, by the end of FY 2015.

Y-12 is currently meeting this goal. In FY 2013, more than 53% of non-hazardous solid waste was diverted from the landfill through reuse and recycle. This has been achieved due to implementation of the systematic disposition evaluation process and continued expansion of the recycling program. In FY 2013, plastic water bottle racks were added as a new recycle stream to broaden waste diversion efforts.

The Property Exchange intranet site provides a means for employees to post usable excess property items for on-site reuse. Y-12 has transferred materials for reuse to several agencies and facilities, including DOE Oak Ridge Operations, Hanford, and ORNL. Items transferred in FY 2013 include vehicles, maintenance supplies, and security equipment. Over 400,000 pounds of materials and equipment were diverted from the landfill via external transfers for reuse.

The Clean Sweep Program was developed to improve the environment and support the prevention of pollution through site cleanup efforts. The Clean Sweep Program provides segregation, staging and pickup of materials for recycle, excess, and disposal. Clean Sweep sustain areas have been established for the segregation of materials from routine operations and maintenance activities pending disposition. Clean Sweep personnel evaluate surplus materials in the sustain areas to ensure that the maximum amount of materials are dispositioned as either excess, recycled, or reused to minimize the total amount of materials disposed of in the landfill (Fig. 5.2). Clean Sweep personnel support the generating organizations by providing a contact for the proper disposition of materials from areas that either pose a safety hazard, pose an environmental risk, pose a compliance issue, or that are cluttered. In FY 2013, Clean Sweep activities diverted over 770,000 pounds of materials from the sanitary landfill through reuse and recycle.

In FY 2013, security activities were transferred to the Y-12 management and operating contractor. The personnel and training facility activities have been incorporated into Y-12's recycling and reuse processes to ensure maximum diversion of related waste materials.

Fig. 5.2. Clean Sweep sustain areas are established to allow for staging and segregation of materials pending disposition to ensure maximum diversion of materials from landfill disposal.

PROJECTED PERFORMANCE

Sustainability and Stewardship Program personnel will continue to provide assistance to site generators to ensure that excess materials are reused or recycled to the maximum extent practicable. Y-12 adds at least one new recycling stream to the Recycle Program each year to continue to increase the waste diversion rate.

Y-12 will also maintain the focus on source reduction to facilitate the reduction in the total quantity of waste materials generated. Increasing employee awareness continues to be a key focus for waste reduction activities.

Y-12 does not foresee any significant site population changes that will impact non-hazardous solid waste generation volumes.

5.2 CONSTRUCTION AND DEMOLITION

Diverting at least 50% of construction and demolition materials and debris by the end of FY 2015.

PERFORMANCE STATUS

Overall, construction and demolition waste volumes were lower. Fewer demolition projects were completed in FY 2013 due to sequestration funding levels. Y-12 is currently meeting this goal. In FY 2013, more than 71% of construction and demolition materials and debris were diverted from the landfill through reuse and recycle. Y-12 applies the systematic disposition approach to construction projects, building cleanouts, and demolitions to ensure that maximum waste diversion is achieved.

In FY 2013, UPF construction continued site preparation activities. UPF diverted more than 350 tons of wood materials from the solid waste stream. The brush materials were ground and then placed in wind rows for erosion control. As a part of the UPF Bear Creek Road Bypass Phase II Project, existing patrol roads and drainage ditches and slopes were demolished. Over 2,340 cubic yards of excavated rip rap and road base were reused to build new haul roads for the UPF project. Over 52,000 pounds of scrap metal were recycled from the UPF Bear Creek Road Bypass Project.

PROJECTED PERFORMANCE

Construction and demolition projects will continue to use the systematic disposition evaluation method and the expanding Y-12 recycling program to ensure that project materials are reused or recycled, as appropriate, in order to maintain a greater than 50% diversion rate. In support of transformation efforts, Y-12 anticipates an increase in construction and demolition activities beyond FY 2014. Construction and demolition project waste management plans will specify the segregation and recycling requirements for each individual project. The UPF project construction activities will continue in FY 2014 and these activities will be supported by the recycling program.

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6.1. PROCUREMENT AND ACQUISITION

Y-12 is currently meeting the procurement goals through the implementation of the Y-12 Sustainable Acquisition program.

PERFORMANCE STATUS

The sustainable acquisition requirements of DOE Acquisition Regulation clause 952.223-78 were incorporated into Y-12's procurement clauses in FY 2011. In FY 2012, Y-12's terms and conditions were updated to include Federal Acquisition Regulation Clause 52.223-15. This clause requires that energy efficient products meet DOE and EPA criteria for use of the Energy Star® trademark label, or are in the upper 25% of efficiency for all similar products as designated by DOE's FEMP.

Sustainable acquisition requirements are included in all Accelerated Vendor Inventory Delivery (AVID) preferred vendor contracts. AVID vendors are required to sign an annual Sustainable Acquisition Program certification statement that states they will provide Y-12 with products that meet requirements for recycled content, bio-based content, Energy Star, WaterSense®, alternative fuels, and the Electronic Product Environmental Assessment Tool (EPEAT), as applicable. This allows Y-12 to maximize the purchase of materials to meet the requirements for recycled content in FY 2013.

Sustainable acquisition has truly been ingrained into the daily activities across Y-12, as evidenced by the following examples.

- Prior to purchasing items, Y-12 employees review Product Exchange [Y-12's internal website listing of consumables (e.g., office supplies, maintenance and laboratory chemicals) available for free] and Property Exchange [Y-12's internal website listing of non-consumables (e.g., equipment, tools, and furniture) available for free] as the first source of supply. This ensures that the current inventories of items are used rather than purchasing new materials. Over 77,000 pounds of materials valued at over $90,000 were reused internally through Property Exchange and Product Exchange in FY 2013.
- Y-12 also reutilized materials from other sites instead of purchasing new materials. Examples of materials that were acquired from other federal facilities include a sampling system and security equipment. This saves Y-12 from having to procure various materials while supporting sustainable acquisition initiatives.
- The Y-12 Development organization is utilizing a bio-based plastic in 3-D printing. The polylactic acid, or PLA, a corn-based biodegradable plastic, is a substitute for ABS plastic. The 3-D printers have been used to support work for NNSA and the Nuclear Detection and Sensor Testing Center. The 3-D printers are able to create items out of PLA. 3-D printing provides a quick way to transform thoughts into objects. Creating the items out of PLA reduces the machining time required to make similar parts out of metal. 3-D printing is a waste-free process; it does not create the waste chips and fluids typically generated by metals machining. Development is able to meet customer needs more quickly and with less raw material usage. The 3-D option allows low cost prototypes to be developed

Fig. 6.1. Ben Green holds one of the many creations spun from a 3-D printer, using polylactic acid, or PLA, a corn-based biodegradable plastic.

quickly. For example, in FY 2013 one project was able to design, print, test, and modify a prototype within one day (Fig. 6.1).

As part of Y-12's continual improvement philosophy, sustainable behaviors were highlighted during Y-12's Earth Day celebration activities. The Y-12 Pollution Prevention booth highlighted sustainable acquisition examples in a typical office as well as the cafeteria.

PROJECTED PERFORMANCE

Due to the inclusion of the sustainable acquisition requirements in site procurement clauses, future procurement activities should contain the sustainable acquisition requirements. The Sustainable Acquisition Team members identify and test alternative products and chemicals to expand the use of sustainable products at Y-12. The activities being completed as part of the UPF project will follow existing Y-12 Sustainable Acquisition procedures and policies.

7.1. DATA CENTERS/ELECTRONIC STEWARDSHIP

Y-12 has made significant progress toward the electronic stewardship goals outlined in the Executive Order. Although the site is not currently using the Data Center Pro Tool Suite, consideration will be given to incorporating it as needed in the future. The site continues toward consolidation of data centers and use of thin/thick-client and virtual server technology through the implementation of thin/thick client appliances in the unclassified desktop environment. Y-12's Information Technology (IT) organization has taken many significant actions to enhance the electronic stewardship of data centers in support of DOE Order 436.1. These actions include initiatives in the areas of server virtualization, virtual desktop infrastructure, procurement of energy-efficient computing equipment, reuse and recycle of computing equipment, replacement of aging computing equipment with more energy-efficient equipment, and reconfiguration of data centers to achieve more energy-efficient operations.

PERFORMANCE STATUS

At present, none of the Y-12 data centers are individually metered. Metering was planned for Buildings 9103 and 9117 during FY 2013, but due to budget constraints, could not be implemented. This effort included electric, chilled water, and steam metering, and will be completed when specific funding is identified.

PROJECTED PERFORMANCE

Future consolidation efforts for the site data centers will be evaluated and sub-level metering may be installed during the consolidation efforts in order to effectively capture the data center energy usage.

7.2. POWER UTILIZATION EFFECTIVENESS

Although the PUE rating for data centers is unknown, Y-12 is diligently implementing measures to increase efficiency. The site is replacing physical servers with virtual servers as existing physical servers reach end-of-life or as new servers are needed. Y-12 had deployed approximately 500 virtual servers on about 90 physical hosts by the end of FY 2013 and plans to continue deploying virtual servers to the maximum extent practicable. Assuming a reasonable 5-to-1 virtual-to-physical server ratio (5 virtual servers per physical server on average) when fully implemented, energy usage will be four times as efficient using virtual servers as compared to the old paradigm of using only physical servers. This should save a significant amount of electricity.

PERFORMANCE STATUS

Y-12 has taken steps to reduce power consumption pursuant to data backup and recovery. The IT organization has started a program to reconfigure, over time, Y-12's data centers to reduce power consumption over the current configuration. Servers are being placed back to back, for example, to implement the "hot aisle, cold aisle" paradigm whereby servers are dispersing hot air into alternating aisles, which can have cooling directed there, leaving every other aisle relatively cool.

Y-12's IT organization has issued internal guidance to Procurement to require that computing equipment with Energy Star features is delivered with these features enabled. Y-12 has implemented power management to eligible CPUs and laptops; power management features are enabled on all monitors not deemed mission critical. Y-12 currently uses

Microsoft Systems Management Server to ensure that Energy Star power management features are implemented. Implementation of Energy Star power management features is incorporated into a group policy that is pushed to site computers multiple times each day. Y-12 is expanding its use of energy efficient thin clients and currently has over 700 power-managed thin clients deployed.

Y-12 has implemented policies requiring recycled printer paper and toner cartridges. The Y-12 IT organization has implemented policies encouraging usage of shared network printers with duplex capabilities enabled.

PROJECTED PERFORMANCE

Y-12 is deploying Citrix Provisioning Services, XenServer, and XenApp to enable a virtual desktop infrastructure. This infrastructure will allow the replacement in the near term of 300 PCs with more energy-efficient thin clients, which will save an estimated 500,000 kWh of electricity per year. Citrix XenApp Power and Capacity Management will also allow Y-12 to power off Citrix servers when not in use, saving electricity in the data center.

7.3. ELECTRONIC STEWARDSHIP

In FY 2014, Y-12's IT organization plans to continue its actions to enhance the electronic stewardship of the site's data centers. IT is making plans for FY 2014 to transition to disk-to-disk backups in the unclassified domain, which are expected to eliminate dozens of tape drives and libraries and several dedicated backup servers. These disk-to-disk backups will collectively back up all central Windows and UNIX servers. In support of the Y-12 SSP and DOE Order 436.1, IT plans to continue to expand on the initiatives already underway in the areas of server virtualization and virtual desktop infrastructure.

Y-12 employs a computing equipment recycling program developed by IT, Property, and Sustainability and Stewardship personnel to recycle electronic computing equipment. All computer recycling facilities are reviewed and approved by Y-12 environmental compliance personnel prior to use for Y-12 materials.

PERFORMANCE STATUS

Y-12 joined the Federal Electronics Challenge (FEC) in FY 2008 and won the FEC Bronze award in FY 2009. Y-12 built on that foundation and won the FEC Silver award in FY 2010 and FY 2011 and the FEC Gold award in FY 2012. Y-12's computing equipment recycling program was one important aspect of meeting the FEC's rigorous rating criteria.

The IT organization has been proactive and aggressive in replacing older cathode-ray tube (CRT) monitors with newer flat-panel monitors that are much more energy efficient. Many CRT monitors have now been replaced, resulting in a substantial percentage energy reduction.

Over 98% of all computer desktops, laptops, monitors, and thin clients purchased or leased during FY 2013 were EPEAT-registered products. Y-12's standard desktop configuration specifies the procurement of EPEAT-registered and Energy Star-qualified products.

PROJECTED PERFORMANCE

IT is making plans for FY 2014 to transition to disk-to-disk backups in the unclassified domain, which are expected to eliminate dozens of tape drives and libraries and several dedicated backup servers. These disk-to-disk backups will collectively back up all central Windows and UNIX servers.

PAPERLESS INITIATIVE

Currently, production surveillance and rounds information are being captured manually by operators or engineers by performing walk downs in areas and completing data sheets. Further, the data that is captured is not stored in a central location where useful trending information can be communicated to the appropriate personnel quickly and easily. A typical system/process engineer will need to access several programs (SAP, FMES, local databases) and paper records to get updated information on a system. Therefore, production has identified a need for improving data access, collection accuracy, and reducing manpower efforts by integrating wireless data capability, mobile devices (tablets), track and trend capability, and other data collected via rounds or surveillances and making it accessible via a single application. The project will utilize wireless tablets to assist in improving data accuracy, reducing field collection time, and providing new electronic access to the data collected.

Due to the purchase of Renewable Energy Certificates (RECs), the Y-12 site is meeting the 7.5% electricity consumption goal for FY 2013. The green-e certified RECs in the amount of 19,000 MWh/yr are biomass fuel generated by Interstate Paper, LLC in Georgia. The site plans to renew the purchased credits for FY 2014 and beyond, striving for the 20% renewable implementation by 2020.

PERFORMANCE STATUS

Y-12 uses small photovoltaic panels to supply power to water sampling equipment and a site flagpole light. While these do not approach the 7.5% electricity requirement, they demonstrate a sustainable mindset, and the site is actively pursuing larger projects for possible installation. The UPF design team performed an assessment for including a solar array within the site for the buildings. The intent was to off-set energy consumption and aid in achievement of the LEED certification. Due to the magnitude of the projected energy intensity, the solar array was cost prohibitive and would have taken up several acres of land in a densely populated area of the plant. At this time, the array has been removed from the design.

During the initial site readiness construction for UPF, the United States Army Corps of Engineers subcontractor utilized a "solar powered" generator (Fig. 8.1) to operate water pumps when needed for draining water from excavations.

A solar installation was evaluated as part of the ESPC preliminary assessment during FY 2013. Although the cost of solar photovoltaic installations has decreased in the last several years, the return on investment due to the low electricity rates within the TVA region rendered the project cost prohibitive based on the return on investment. The site

Fig. 8.1. Solar-powered generator on UPF construction site.

continues to investigate renewable energy options and if the return on investment is acceptable will include in future project plans.

As previously mentioned, the Central Training Facility has not been evaluated for potential renewable energy installations. Efforts will be made to include this evaluation in planned assessments during FY 2014.

PROJECTED PERFORMANCE

Although it is not currently economically feasible for the site to implement the 7.5% initiative in the near term, Y-12 has considered the following renewable energy installations: vertical-axis wind turbine (VAWT), solar parking array, and steam station generator.

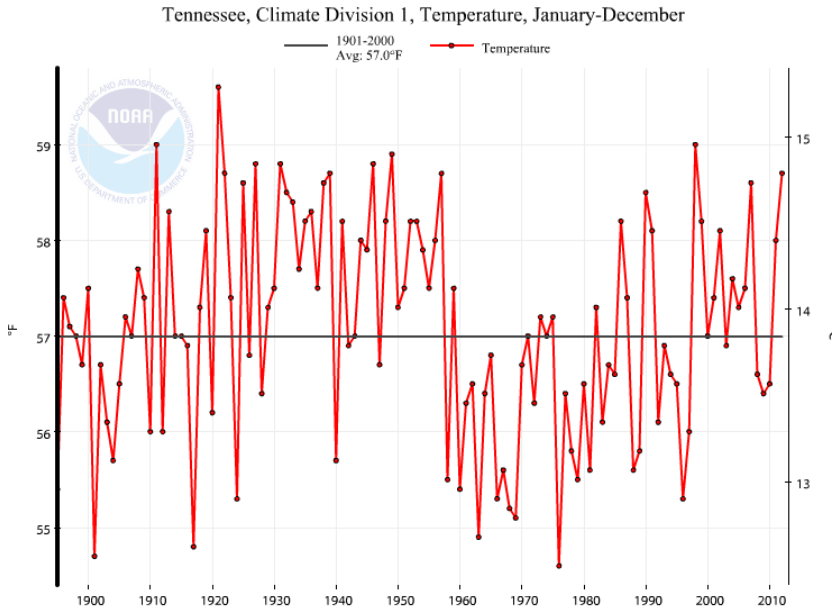
- VAWT — the site actively worked with a vendor to collect data related to wind speed at Y-12. Anemometers were installed on the south ridge and on top of Building 9201-03 to determine if the average wind speed will support the VAWT installation. The data collected determined the wind speed is not sufficient to support the VAWT installation.
- Solar parking structure — several locations have been identified as ideal candidates for a solar parking structure. Although initial installations would be small, the long-term plans would be to install several structures to eventually attempt to provide a zero-energy facility. Both the North Portal Parking Lot and the New Hope Center have been identified as good candidates for the installation. Although funding is an issue, the project is being included in the site planning to ensure renewable energy is considered in the prioritized project plan.
- Steam station generator — although currently only in the investigation phase, a steam station generator could be an ideal renewable source for Y-12. The generator acts as a pressure-reducing station in a steam line. Pressure energy normally dissipated by reducing steam pressure through a pressure-reducing valve is instead converted to power by channeling that steam through a patented radial outflow turbine. The turbine then generates electricity that can be used in the building.
- Small modular reactor — Y-12 is supporting a regional commitment to clean energy, facilitated by the potential construction of a small modular reactor that could be built by TVA with prospective financial support (possibly clean energy certificates) provided by DOE, Oak Ridge Operations, and/or B&W.

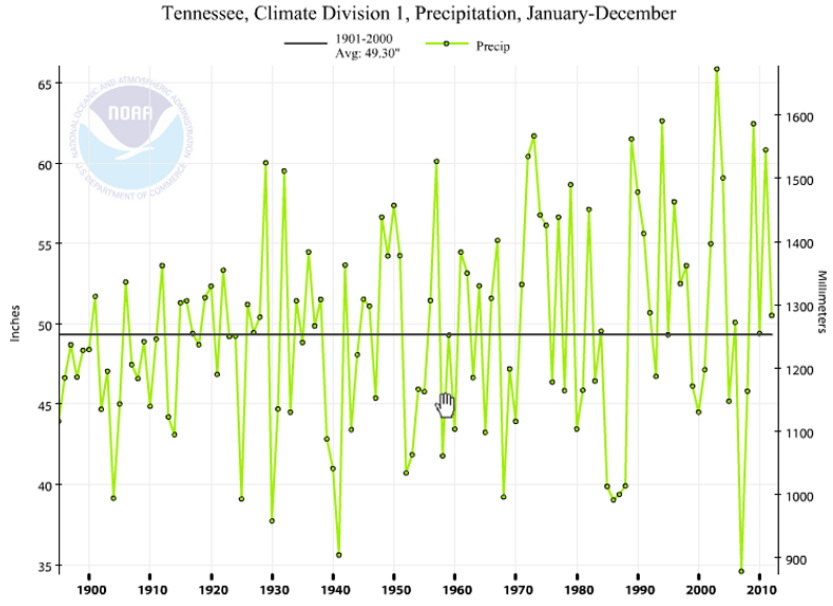
Renewable energy projects have been evaluated for implementation at Y-12 several times, but have historically been cost prohibitive in terms of savings to investment ratio and return on investment strategies. In all probability, Y-12 will be dependent on Renewable Energy Credits to satisfy the requirement for a 20% renewable energy installation.

The site has evaluated past data for trends in weather patterns as well as specific weather events. The following information provides an overview of potential impacts and planning activities related to climate change. Historical data trends (Figs. 9.1 and 9.2), do not support the likelihood of Tennessee experiencing adverse effects due to increased warming. The current climate change debate does not present any new scenarios at Y-12 that have not been planned for already. Y-12 will continue to track trends and information on climate change.

OBJECTIVE 1.1/1.2/4.2

Y-12 is fortunate in regards to climate change information and data exchange. The site has three meteorological towers and a resident meteorologist. The site is also located adjacent to ORNL, where some of the nation's foremost research on climate change is underway. Y-12 participates in opportunities for regional planning with ORNL and other local governments, including ORNL's annual regional Sustainability Summit. The summit is an ongoing effort to deploy sustainable technologies





Figs. 9.1. and 9.2. Tennessee Temperature and Precipitation by year, 1895-2012.

across the southeast and includes participants from federal, state, and local governments as well as universities and colleges. Y-12 also participates in regional climate change efforts with the TVA and the University of Alabama Huntsville. The site will continue to actively participate in these discussions.

As noted in the section on Regional and Local Planning, Y-12 is engaged in numerous organizations dedicated to future planning and impacts. Y-12 will continue to participate in government and regional strategies for climate change adaption.

OBJECTIVE 2.2

For planning purposes, the following topics have been assessed and potential impacts to Y-12 are considered.

- Water resources and quality: Water quality is closely monitored at Y-12. Flooding and flow rates on East Fork Poplar Creek could be impacted by increased/decreased rainfall.
- Infrastructure: More sporadic rainfall could impact facilities due to flooding and roof leakage. Additionally, energy demands are likely to rise with increases in temperature.
- Tornadoes and hurricanes: East Tennessee has experienced tornadoes and increased rain/snow due to hurricanes. Severe weather events can impact facility operations, energy demand, and resources.
- Health impacts: EPA projects that Tennessee's environment may become more hospitable to disease-carrying insects, including those with malaria, Lyme disease, and dengue fever. East Tennessee may be further impacted by poor air quality and an increase in respiratory diseases and heat-related health issues.
- Temperature extremes: Higher temperatures and heat waves will likely increase the number of heat-related deaths and illnesses. Higher temperatures will also increase demand for water supplies used for both drinking and cooling.
- Impact on wildlife: Tennessee Wildlife Resources Agency (TWRA) maintains a presence on the ORR, where Y-12 resides. Although Y-12 is considered an urban environment, due to the size and surrounding land areas, the site has many of the resources found in a rural area. Turkey, whitetail deer, coyote, and the occasional black bear are resident on the site. East Fork Poplar Creek, located immediately adjacent to Y-12, contains numerous species of fish and aquatic animals. Flooding and drought conditions would likely have the most impact on wildlife. In cooperation with TWRA, wildlife and aquatic animals are monitored to ensure the site has no adverse effects on the population.

OBJECTIVE 4.1

Y-12 ensures sustainability, energy reduction, and climate change is included as elements of site-wide reports and policies.

- Master Site Plan
- Ten Year Site Plan
- Y71-100PD, Environmental Management Policy
- Y71-050, Y-12 Storm Water Pollution Prevention and Requirement
- Y77-311, Y-12 Pollution Prevention Program Implementation
- Y77-177, Y-12 Complex-wide Recycling
- Y40-140, Y-12 Building/Facility Emergency Program

CONCLUSION

Although there is no observational evidence of long-term climate changes in Tennessee, Y-12 will continue to implement initiatives to reduce GHG and provide a more sustainable site. Additionally the site will continue with regional and local discussions and workshops on climate change as they become available.

Dedicated funding for energy and water projects is provided via the ESPC mechanism (Table 10.1). ESPC delivery order #2 is in the second period of performance at Y-12; delivery order #3 was awarded September 2013. Efforts from delivery order #2 have greatly contributed toward both energy reduction and efficiency gains for the projects implemented. Delivery order #3 will be implemented from first quarter FY 2014 – fourth quarter FY 2016 and will result in an estimated annual energy and water cost savings of $2,874,696 and estimated energy-related O&M annual energy and water cost savings of $2,381,304. The site will continue to work with NNSA for successful accomplishment of these efforts.

Accomplishment of smaller-scale energy reduction projects is included within internal baseline budgets. In FY 2013, the Readiness in Technical Base and Facilities program dedicated ~$1M for lighting fixture upgrades in the Production facilities. Although funding for specific projects is limited, the site recognizes that significant contributions to the goals can be achieved by including energy, water, and sustainability efficiencies within ongoing maintenance work. When appropriate and feasible, modifications to facilities include both energy and sustainable elements. Specific examples of this integration include the HVAC replacements, pervious pavement and solar elements in the parking lot, lighting replacements, energy-efficient utility modifications, and sustainable acquisition clauses.

Table 10.1. Dedicated funding via the ESPC mechanism — Delivery Order #3

ECM #	Conservation Measure Name or Description	Starting Year	Estimated Improvement Cost	Estimated Annual Energy Savings/ MBtu/Yr	Estimated Annual Energy Cost Savings	Payback Year	Savings to Investment Ratio (SIR)*	Status
	Proposal Development		$1,828,860					
1.1	Steam Decentralization Improvements	FY 2014	$7,883,238	152,139	$691,816	FY 2016	N/A*	Approved
2.1	Chiller Plant Improvements	FY 2014	$13,408,427	36,636	$1,274,096	FY 2016	N/A*	Approved
5.1	Energy-Efficient Lighting Improvement	FY 2014	$9,068,593	71,796	$2,578,579	FY 2016	N/A*	Approved
7.1	Steam Distribution System	FY 2014	$2,020,468	51,575	$241,442	FY 2016	N/A*	Approved
16.1	Compressed Air Plant	FY 2014	$4,834,481	7,748	$470,067	FY 2016	N/A*	Approved
	Project Direct Costs (Less Project Development)		$8,686,668					
Total			**$47,730,735**	**319,894**	**$5,256,000**			

**Each ECM was approved through an Industrial Grade Audit and proven to be cost-effective.*

Whenever practicable, savings resulting from energy reductions are reinvested into plant-wide efforts. Facility management and the Readiness in Technical Base and Facilities program annually review identified energy projects. Efforts are selected for implementation based on funding levels and priority of installation. Although out-year funding is uncertain, Y-12 will continue to execute projects as funding becomes available or as they can be accomplished incrementally within current funding profiles. Table 10.2 contains key sustainability projects that Y-12 desires to execute if funding becomes available.

Table 10.2. Key Unfunded Sustainability Projects

HQ Project #	Site Project #	Conservation Measure(s) Name or Description	Starting Year of Measure Implementation	Completion/ Operational Year of Measure	Estimated Implementation Cost($)	Estimated Annual Cost Savings ($/Yr)	SIR
NNSA-0146-0032	Y12-E-TC18-02	9103 Advanced electrical meter	2015 2012 - originally	2015 2012 - originally	$18,000	$8,062	6.96
NNSA-0146-0032	Y12-E-TC18-02	9733-05 Advanced electrical meter repair	2015 2013 - originally	2015 2013 - originally	$9,000	$749	1.28
NNSA-0146-0152	N/A	9723-33 Plumbing upgrades (D20)	2017	2017	$83,284	$11,859	3.37
NNSA-0146-0157	N/A	9723-28 Plumbing upgrades (D20)	2017	2017	$56,666	$10,188	2.94
NNSA-0146-0190	N/A	9723-27 Plumbing upgrades (D20)	2014	2016	$85,633	$19,374	5.67

Y/IA-451/Rev.2

Y-12 SITE SUSTAINABILITY PLAN

APPENDICES

2014

DISCLAIMER

Y-12 NATIONAL SECURITY COMPLEX

FY 2014
SITE SUSTAINABILITY PLAN
(APPENDICES)

DECEMBER 2013

Prepared by Y-12 National Security Complex
P.O. Box 2009, Oak Ridge, Tennessee 37831-8169

Managed by Babcock & Wilcox Technical Services Y-12, LLC for the U.S. Department of Energy under contract DE-AC05-00OR22800

12/12/ 2013		
Date	Steven C. Erhart, Manager NNSA Production Office	Charles G. Spencer, President and General Manager B&W Y-12

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Appendix A:
Metering
Spreadsheet

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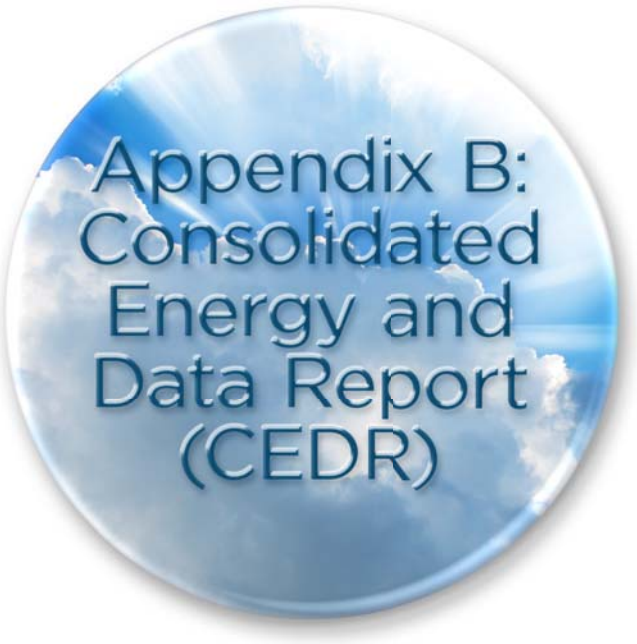
Y-12 FY 2014 Site Metering Plan Spreadsheet (Building-by-Building)

					ELECTRICAL					STEAM					NATURAL GAS					CHILLED WATER				WATER				DATA CENTER			
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
Site	Building (FIMS Name)	Property Sequence Number	GSF	HPSB	Meter Type and Status	Estimated Annual Energy Usage (KWh)	Fiscal Year to Install 201x	Cost (Dollars)	EPAct	Meter Type and Status	Estimated Annual Energy Usage (Btu^3)	Fiscal Year to Install 201x	Cost (Dollars)	EISA	Meter Type and Status	Estimated Annual Energy Usage (Btu^3)	Fiscal Year to Install 201x	Cost (Dollars)	EISA	Meter Type and Status	Estimated Annual Energy Usage (Btu^3)	Fiscal Year to Install 201x	Cost (Dollars)	Meter Type and Status	Estimated Annual Water Usage (000s Gallons)	Fiscal Year to Install	Cost (Dollars)	Data Center Building	Data Center Metered	FY to Complete Metering	Cost (Dollars)
Y-12 Site Office	1418	208391		2 No	5 Advanced Installed	4,770,140			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				4 Standard Installed							
Y-12 Site Office	9103	98357	110,248	2 No	3 No Meter Future Advanced	2,480,580	2015	$ 252,729	Yes	3 No Meter Future Advanced	7,968	2015	$ 252,729		1 No Meter - No Meter - Not Required					3 No Meter Future Advanced	11,443.95	2015	$ 252,729	3 No Meter Future Advanced	19,660	2015	$ 25,000	Yes	NO	2015	$ 758,187
Y-12 Site Office	9105	98361	7,667	2 No	3 No Meter Future Advanced	115,005	2014	$14,500.00	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9106	98362	15,990	1 Yes	4 Standard Installed	232,640	2015	$14,500	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				4 Standard Installed							
Y-12 Site Office	9107	98363	11,632	2 No	4 Standard Installed	109,210			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9108	98364	7,544	2 No	4 Standard Installed	105,600	2015	$14,500.00	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9109	98365	9,788	1 Yes	4 Standard Installed	140,800	2015	$14,500	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				3 No Meter Future Advanced	19,660	2015	$ 25,000				
Y-12 Site Office	9110	98366	8,634	2 No	4 Standard Installed	2,584,064	2015	$25,750	Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9111	98367	13,717	2 No	4 Standard Installed	130,560			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9113	98369	59,299	1 Yes	3 No Meter Future Advanced	889,485	2015	$25,750	No	3 No Meter Future Advanced	7,215	2015	$ 50,100		1 No Meter - No Meter - Not Required					3 No Meter Future Advanced	6,155	2015	$ 50,100	3 No Meter Future Advanced	19,660	2015	$ 25,000				
Y-12 Site Office	9114	98370	36,901	1 Yes	5 Advanced Installed	714,871			No	3 No Meter Future Advanced	3,596	2015	$ 50,100		1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				3 No Meter Future Advanced	19,660	2015	$ 25,000				
Y-12 Site Office	9115	98371	16,415	1 Yes	3 No Meter Future Advanced	246,225	2015	$14,500	No	4 Standard Installed	1,286				1 No Meter - No Meter - Not Required					3 No Meter Future Advanced	1,704	2015	$ 50,100	4 Standard Installed							
Y-12 Site Office	9116	98372	16,415	1 Yes	3 No Meter Future Advanced	246,225	2015	$14,500	No	3 No Meter Future Advanced	1,251	2015	$ 50,100		1 No Meter - No Meter - Not Required					3 No Meter Future Advanced	1,704	2015	$ 50,100	4 Standard Installed							
Y-12 Site Office	9117	98373	19,648	1 Yes	3 No Meter Future Advanced	442,080	2015	$126,364	NO	3 No Meter Future Advanced	513	2015	$126,364		1 No Meter - No Meter - Not Required					3 No Meter Future Advanced	2,039	2015	$126,364	3 No Meter Future Advanced	19,660	2015	$ 25,000	Yes	NO	2015	$ 379,093
Y-12 Site Office	9119	98374	73,381	1 Yes	4 Standard Installed	975,000	2015	$25,750	No	3 No Meter Future Advanced		2015	$ 50,100		1 No Meter - No Meter - Not Required					3 No Meter Future Advanced	7,617	2015	$ 50,100	3 No Meter Future Advanced	19,660	2015	$ 25,000				
Y-12 Site Office	9202	98381	157,228	2 No	5 Advanced Installed	1,068,000			Yes	3 No Meter Future Advanced	7,192	2015	$ 50,100	YES	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required	16,321		$ 50,100	3 No Meter Future Advanced	19,660	2016	$ 25,000				
Y-12 Site Office	9206	98390	57,812	2 No	5 Advanced Installed	2,031,260			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9212	98395	442,317	2 No	5 Advanced Installed	26,214,257			Yes	3 No Meter Future Advanced	167,802	2015	$ 50,100		2 No Meter Future Standard	150,871	2015	$ 15,500.00	YES	1 No Meter - No Meter - Not Required	45,913		$ 50,100	3 No Meter Future Advanced	19,660	2016	$ 25,000				
Y-12 Site Office	9215	98397	188,729	2 No	5 Advanced Installed	15,727,216			Yes	3 No Meter Future Advanced	10,787	2015	$ 50,100		2 No Meter Future Standard	150,871	2015	$ 15,500.00	YES	1 No Meter - No Meter - Not Required	19,590		$ 50,100	1 No Meter - No Meter - Not Required	19,660		$ 25,000				
Y-12 Site Office	9623	98511	19,534	2 No	4 Standard Installed	211,381			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9731	98610	37,159	2 No	5 Advanced Installed	185,795			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9737	98621	98,017	2 No	5 Advanced Installed	3,227,000			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					3 No Meter Future Advanced		2016 and beyond		3 No Meter Future Advanced	19,660	2016 and be	$ 25,000				
Y-12 Site Office	9995	98801	81,655	2 No	5 Advanced Installed	6,804,497			Yes	3 No Meter Future Advanced	71,915	2015	$ 50,100		1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required	8,476		$ 50,100	1 No Meter - No Meter - Not Required	19,660		$ 25,000				
Y-12 Site Office	9996	98802	34,233	2 No	5 Advanced Installed	2,852,714			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9998	98803	152,134	2 No	5 Advanced Installed	12,667,672			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required	19,660		$ 25,000				
Y-12 Site Office	301 BCR	204358	411,937	1 Yes	5 Advanced Installed	10,260,000			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				5 Advanced Installed							
Y-12 Site Office	602 SCA	204359	137,758	1 Yes	5 Advanced Installed	4,085,000			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	741-000	133800	4,558	2 No	5 Advanced Installed	154,972			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9201-01	98375	270,988	2 No	5 Advanced Installed	7,228,330			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				3 No Meter Future Advanced	19,660	2016	$ 25,000				
Y-12 Site Office	9201-02	98376	324,448	2 No	5 Advanced Installed	316,150			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9201-03	98377	191,978	2 No	5 Advanced Installed	3,735,243			Yes	4 Standard Installed	53,936				1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				3 No Meter Future Advanced	19,660	2015	$ 25,000				
Y-12 Site Office	9201-04	98378	510,218	2 No	1 No Meter - No Meter - Not Required	882,610			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9201-05	98379	613,642	2 No	4 Standard Installed	3,068,210			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9201-05N	98380	78,049	2 No	5 Advanced Installed	4,600,000			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9201-05W	133777	70,005	2 No	5 Advanced Installed	3,925,300			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9203A	98383	13,881	2 No	1 No Meter - No Meter - Not Required	180,453		$14,500	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9204-01	98384	210,491	2 No	1 No Meter - No Meter - Not Required	210,491			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9204-02	98385	324,085	2 No	5 Advanced Installed	6,974,324			Yes	3 No Meter Future Advanced	107,873	2015	$ 50,100		2 No Meter Future Standard	177,266	2015	$ 15,500.00	YES	3 No Meter Future Advanced	33,641	2016 and beyon	$ 50,100	3 No Meter Future Advanced	19,660	2016 and be	$ 25,000				
Y-12 Site Office	9204-02E	98388	172,892	2 No	5 Advanced Installed	6,851,758			Yes	3 No Meter Future Advanced	83,901	2015	$ 50,100		1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required	17,947		$ 50,100	1 No Meter - No Meter - Not Required	19,660		$ 25,000				
Y-12 Site Office	9204-03	98386	255,656	2 No	5 Advanced Installed	2,290,611			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9204-04	98387	313,771	2 No	5 Advanced Installed	1,845,000			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9217-01	98399	1,267	2 No	4 Standard Installed	43,078			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9401-03	98407	62,124	2 No	1 No Meter - No Meter - Not Required	62,124			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9401-07	207482	19,200	2 No	5 Advanced Installed	3,131,384			Yes	1 No Meter - No Meter - Not Required					5 Advanced Installed	710,891			YES	1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9404-10	98409	3,380	2 No	3 No Meter Future Advanced	4,056,000	2014	$49,500	Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9404-13	98412	953	2 No	5 Advanced Installed	1,393,018			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9409-02	98269	40,000	2 No						1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required	19,660		$ 25,000				
Y-12 Site Office	9409-10	98257	40,000	2 No						1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				3 No Meter Future Advanced	19,660	2016	$ 25,000				
Y-12 Site Office	9409-18	98266	40,000	2 No	5 Advanced Installed	320,133			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9409-22	98264	40,000	2 No						1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				3 No Meter Future Advanced	19,660	2016	$ 25,000				
Y-12 Site Office	9409-22E	98249	40,000	2 No						1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				3 No Meter Future Advanced	19,660	2016	$ 25,000				
Y-12 Site Office	9409-23	98260	40,000	2 No						1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				3 No Meter Future Advanced	19,660	2016	$ 25,000				
Y-12 Site Office	9409-24	98256	40,000	2 No						1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				3 No Meter Future Advanced	19,660	2016	$ 25,000				
Y-12 Site Office	9409-24W	139676	40,000	2 No						1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				3 No Meter Future Advanced	19,660	2016	$ 25,000				
Y-12 Site Office	9409-31	98247	40,000	2 No	5 Advanced Installed	371,260			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9710-03	98529	41,496	1 Yes	3 No Meter Future Advanced	539,448	2015	$27,000	NO	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					3 No Meter Future Advanced		2015		3 No Meter Future Advanced		2015					
Y-12 Site Office	9712-01	201424	4,697	2 No	1 No Meter - No Meter - Not Required	61,061		$14,500.00	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9720-15	98546	5,065	2 No	4 Standard Installed	10,130			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9720-39	98567	8,193	2 No	4 Standard Installed	26,580			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9720-82	207178	153,001	1 Yes	5 Advanced Installed	4,411,188			Yes	3 No Meter Future Advanced	59,929	2015	$ 50,100		1 No Meter - No Meter - Not Required					5 Advanced Installed	15,882		$ 50,100	4 Standard Installed							
Y-12 Site Office	9720-94	203813	9,437	1 Yes	3 No Meter Future Advanced	47,185	2015	$14,500	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9723-28	98599	10,252	2 No	1 No Meter - No Meter - Not Required	133,276		$14,500.00	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9723-33	98601	10,771	2 No	1 No Meter - No Meter - Not Required	140,023		$14,500	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9723-34	200821	6,700	2 No	1 No Meter - No Meter - Not Required	87,100		$25,750	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9727-04A	127348	977	2 No	5 Advanced Installed	980,319			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9733-05	202699	13,322	1 Yes	3 No Meter Future Advanced	199,830	2015	$14,500	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					3 No Meter Future Advanced		**2015**		4 Standard Installed							
Y-12 Site Office	9767-04	98634	6,893	2 No	5 Advanced Installed	11,651,275			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					5 Advanced Installed				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9767-08	98637	4,847	2 No	5 Advanced Installed	2,412,425			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					5 Advanced Installed				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9767-10	98639	12,000	2 No	5 Advanced Installed	8,368,080			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					5 Advanced Installed				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9767-11	98640	4,880	2 No	5 Advanced Installed	4,736,960			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					5 Advanced Installed				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9767-12	98641	3,089	2 No	5 Advanced Installed	3,552,350			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					5 Advanced Installed				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9767-13	98642	20,724	2 No	5 Advanced Installed	24,312,528			Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					5 Advanced Installed				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9983-FD	133761	1,307	2 No	4 Standard Installed	-			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9983-FE	133762	1,307	2 No	4 Standard Installed	182,600			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9983-FF	133763	1,307	2 No	4 Standard Installed	218,570			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9983-FG	133764	1,307	2 No	4 Standard Installed	326,840			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9999-03	98805	2,447	2 No	5 Advanced Installed	53,075			No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9999-06	133797	3,008	2 No	1 No Meter - No Meter - Not Required	102,272		$25,750	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	9999-08	141262	2,332	2 No	1 No Meter - No Meter - Not Required	79,288		$25,750	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-A	136743	4,224	1 Yes	3 No Meter Future Advanced	54,912	2014	$14,500	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-AA	204588	182,556	1 Yes	3 No Meter Future Advanced	2,373,228	2015	$14,500	Yes	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-BB	202466	2,400	2 No	3 No Meter Future Advanced	36,000	2014	$14,500.00	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-CC	202468	2,356	2 No	3 No Meter Future Advanced	4,712	2014	$14,500.00	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-D	136770	4,250	1 Yes	3 No Meter Future Advanced	63,750	2014	$14,500.00	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-DD	208070	5,250	1 Yes	3 No Meter Future Advanced	78,750	2014	$14,500.00	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-EE	141292	1,440	1 Yes	3 No Meter Future Advanced	21,600	2014	$14,500.00	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-G	137239	100	2 No	3 No Meter Future Advanced	300	2014	$14,500.00	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-GG	206339	100	2 No	3 No Meter Future Advanced	1,500	2014	$14,500	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-HH	206335	1,000	2 No	3 No Meter Future Advanced	15,000	2014	$14,500	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-JJ	143720	640	2 No	3 No Meter Future Advanced	1,920	2014	$14,500	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-LL	200867	4,719	2 No	3 No Meter Future Advanced	70,785	2014	$14,500.00	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-MM	208186	1,800	2 No	3 No Meter Future Advanced	9,000	2014	$14,500.00	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-N	137234	112	2 No	1 No Meter - No Meter - Not Required	336		$14,500.00	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-R	201080	512	2 No	1 No Meter - No Meter - Not Required	1,536		$14,500	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-SS	209947	2,000	2 No	3 No Meter Future Advanced	6,000	2014	$14,500	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							
Y-12 Site Office	K-1654-U	207062	480	2 No	1 No Meter - No Meter - Not Required	960		$14,500	No	1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required					1 No Meter - No Meter - Not Required				1 No Meter - No Meter - Not Required							


Appendix B:
Consolidated
Energy and
Data Report
(CEDR)

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Performance Summary

The table below summarized performance for several sustainability goals based on information reported in this workbook. All tabs must be fully completed to populate this table for FY 2013 goal performance! Performance for goals 1.1, 3.1, and 3.2 will not be complete for 2013 if Tab 10 Fleet Fuel (Optional) is not entered and "Current FY" is chosen in cell F6 below. Tab 10 remains optional, and will be filled in by SPO following the close of FAST to complete the DOE GHG Inventory.

Note: 2013 performance is not considered final until DOE's GHG Inventory is approved by FEMP.

If Tab 10 Fleet Fuel (Optional) has been updated with FY 2013 data, select "Current FY" in cell F6 to have the performance estimates based on latest data, otherwise leave as is.

Current FY

SSPP Goal #	DOE Goal	Baseline	FY 2012	FY 2013	Performance Status (FY 2013)
1.1	28% Scope 1 & 2 GHG reduction by FY 2020 from a FY 2008 baseline	337,628.4	215,584.5	205,545.5	-39.1%
1.2*	13% Scope 3 GHG reduction by FY 2020 from a FY 2008 baseline	31,894.5	28,485.4	28,227.8	-11.5%
2.1	30% energy intensity reduction by FY 2015 from a FY 2003 baseline *(Note: Estimates without REC credit)*	418,447	308,177	275,969	-34.0%
	Goal Energy (10^6 Btu)	2,924,565	2,113,550	2,037,495	
	Goal Square Footage (x1,000)	6,989	6,858	7,383	
2.3a	Individual buildings or processes metering for 90% of electricity (by October 1, 2012)			82.0%	82.0%
2.3b	Individual buildings or processes metering for 90% of natural gas (by October 1, 2015)			100.0%	100.0%
2.3c	Individual buildings or processes metering for 90% of steam (by October 1, 2015)			5.0%	5.0%
2.3d	Individual buildings or processes metering for 90% of chilled water (by October 1, 2015)			0.0%	0.0%
3.1	10% annual increase in fleet alternative fuel consumption by FY 2015 relative to a FY 2005 baseline	10,700	58,185	40,177	275.5%
3.2	2% annual reduction in fleet petroleum consumption by FY 2020 relative to a FY 2005 baseline *(Note: Estimates without biodiesel credit)*	246,137	69,776	110,576	-55.1%
4.1	26% water intensity reduction by FY 2020 from a FY 2007 baseline	210.8	140.4	111.5	-47.1%
	Potable Water Consumption (10^6 Gal)	1,370	963	823	
	Total Gross Square Footage (x1,000)	6,500	6,858	7,383	
4.2	20% water consumption reduction of industrial, landscaping, and agricultural (ILA) water by FY 2020 from a FY 2010 baseline	0	0	0	#DIV/0!
5.1 *	Divert at least 50% of non-hazardous solid waste, excluding construction and demolition debris, by FY 2015		51.9%	53.4%	53.4%
5.2	Divert at least 50% of construction and demolition materials and debris by FY 2015		81.2%	71.5%	71.5%
6.1	Procurements meet requirements by including necessary provisions and clauses (Sustainable Procurements / Biobased Procurements)		100.0%	100.0%	100.0%

7.3	100% of eligible PCs, laptops, and monitors with power management actively implemented and in use by FY 2012		100.0%	100.0%	100.0%
8	20% of annual electricity consumption from renewable sources by FY 2020 and thereafter (5% FY 2010 – 2012, 7.5% 2013)		8.3%	8.0%	8.0%
	Renewable Electricity Usage (MWh)		21,009	19,009	
	Total Electricity Usage (MWh)		252,238	236,601	

* Note: Y12 MSW Diversion does not calculate properly in the CEDR, as landfilled waste is reported under ETTP. These values are manually entered and correctly denoted.

Energy Management Data Report

Requirement(s): See tables

Instructions: If applicable, complete cells with blue text and highlight the cell. The information requested is for completing DOE's Annual Energy Report.

Source: Site/Lab

ENERGY EFFICIENCY IMPROVEMENTS AND FUNDING

1-1. E.O. 13514/OMB Circular A-11 Direct Agency Obligations

	FY 2013		Projected FY 2014		Projected FY 2015	
		(Thou. $)		(Thou. $)		(Thou. $)
Direct obligations for facility energy efficiency improvements, including facility surveys/audits		$0.0		$0.0		$0.0
Estimated annual energy savings anticipated from obligations (Million BTU)	0.0	$0.0	0.0	$0.0	0.0	$0.0
Estimated annual water savings anticipated from obligations (Thousands Gal)	0.0	$0.0	0.0	$0.0	0.0	$0.0

1-2. E.O. 13514/OMB Circular A-11 Awarded Energy Savings Performance Contracts (ESPCs)

	Annual savings (10^6 BTU)	(Number/Thou. $)
Number of ESPC Task/Delivery Orders awarded in fiscal year & annual energy (Million BTU) savings	51,575.0	1.0
Investment value of ESPC Task/Delivery Orders awarded in fiscal year		$45,730.7
Amount privately financed under ESPC Task/Delivery Orders awarded in fiscal year		$69,622.5
Cumulative guaranteed cost savings of ESPCs awarded in fiscal year relative to the baseline spending		$88,741.0
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)		$87,905.8
Total payments made to all ESPC contractors in fiscal year		$2,172.5

1-3. E.O. 13514/OMB Circular A-11 Awarded Utility Energy Services Contracts (UESCs)

	Annual savings (10^6 BTU)	(Number/Thou. $)
Number of UESC Task/Delivery Orders awarded in fiscal year & annual energy (Million BTU) savings	0.0	0.0
Investment value of UESC Task/Delivery Orders awarded in fiscal year		$0.0
Amount privately financed under UESC Task/Delivery Orders awarded in fiscal year		$0.0
Cumulative cost savings of UESCs awarded in fiscal year relative to the baseline spending		$0.0
Total contract award value of UESCs awarded in fiscal year (sum of payments for debt repayment and other negotiated performance period services)		$0.0
Total payments made to all UESC contractors in fiscal year		$0.0

1-4. EPAct 1992 Training

	(Number)	(Thou. $)
Number of personnel trained in FY 2013/Expenditure	0	$0.0

Energy Management Data Report

Requirement(s): See tables

Instructions: If applicable, complete cells with blue text and highlight the cell. The information requested is for completing DOE's Annual Energy Report.

Source: Site/Lab

1-5a. EPAct 2005 Metering Of Electricity Use

(Note: If a building has an advanced and a standard meter, only account for the advanced meter. If a building has multiple meters, ensure the utility metered is accounted/reported only once)

Fiscal Year	# of "Appropriate" Buildings Per EPAct 2005	Standard Meters			Advanced Meters			Total		Total % of Electricity Metered
		# of Buildings with Standard Meters	Estimated Amount of Purchased Electricity Metered (kWh/Yr)	Estimated Amount of On-Site Generate Electricity Metered (kWh/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Electricity Metered (kWh/Yr)	Estimated Amount of On-Site Generate Electricity Metered (kWh/Yr)	# of Appropriate Buildings with Dedicated Meters	Cumulative % of "Appropriate" Buildings Metered	
2013 Report	76	15	5,376,984	0	34	187,922,644	0	49	64%	82.0%
2014 Planned	76	15	5,376,984	0	52	192,460,710	0	70	92%	84.0%
2015 Planned	76	10	1,338,880	0	66	203,963,100	0	76	100%	87.0%
2016 Planned	76	10	1,338,880	0	66	203,963,100	0	76	100%	87.0%

1-5b. EISA 2007 Metering Of Natural Gas Use

(Note: If a building has an advanced and a standard meter, only account for the advanced meter. If a building has multiple meters, ensure the utility metered is accounted/reported only once)

Fiscal Year	# of "Appropriate" Buildings Per EPAct 2005	Standard Meters			Advanced Meters			Total		Total % of Natural Gas Metered
		# of Buildings with Standard Meters	Estimated Amount of Purchased Natural Gas Metered (CF/Yr)	Estimated Amount of On-Site Generate Natural Gas Metered (CF/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Natural Gas Metered (CF/Yr)	Estimated Amount of On-Site Generate Natural Gas Metered (CF/Yr)	# of Appropriate Buildings with Dedicated Meters	Cumulative % of "Appropriate" Buildings Metered	
2013 Report	4	3	465,961	0	1	691,528	0	4.0	100.0%	100%
2014 Planned	4	3	465,961	0	1	691,528	0	4.0	100.0%	100%
2015 Planned	4	0	0	0	4	1,157,489	0	4.0	100.0%	100%
2016 Planned	4	0	0	0	4	1,157,489	0	4.0	100.0%	100%

1-5c. EISA 2007 Metering Of Steam Use

(Note: If a building has an advanced and a standard meter, only account for the advanced meter. If a building has multiple meters, ensure the utility metered is accounted/reported only once)

Fiscal Year	# of "Appropriate" Buildings Per EPAct 2005	Standard Meters			Advanced Meters			Total		Total % of Steam Metered
		# of Buildings with Standard Meters	Estimated Amount of Purchased Steam Metered (Btu/Yr)	Estimated Amount of On-Site Generate Steam Metered (Btu/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Steam Metered (Btu/Yr)	Estimated Amount of On-Site Generate Steam Metered (Btu/Yr)	# of Appropriate Buildings with Dedicated Meters	Cumulative % of "Appropriate" Buildings Metered	
2013 Report	15	2	0	55,222,405,862	0	0	0	2.0	13.3%	5%
2014 Planned	15	2	0	55,222,405,862	0	0	0	2.0	13.3%	5%
2015 Planned	15	2	0	55,222,405,862	13	0	697,744,249,614	15.0	100.0%	63%
2016 Planned	15	2	0	55,222,405,862	13	0	697,744,249,614	15.0	100.0%	63%

1-5d. DOE O 436.1 & SSPP Metering Of Chilled Water Use

(Note: If a building has an advanced and a standard meter, only account for the advanced meter. If a building has multiple meters, ensure the utility metered is accounted/reported only once)

Fiscal Year	# of "Appropriate" Buildings Per EPAct 2005	Standard Meters			Advanced Meters			Total		Total % of Chilled Water Metered
		# of Buildings with Standard Meters	Estimated Amount of Purchased Chilled Water Metered (Btu/Yr)	Estimated Amount of On-Site Generate Chilled Water Metered (Btu/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Chilled Water Metered (Btu/Yr)	Estimated Amount of On-Site Generate Chilled Water Metered (Btu/Yr)	# of Appropriate Buildings with Dedicated Meters	Cumulative % of "Appropriate" Buildings Metered	
2013 Report	19	0	0	0	6	0	-	6.0	32%	0%
2014 Planned	19	0	0	0	6	0	-	6.0	32%	0%
2015 Planned	19	0	0	0	14	0	36,353,916,165	14.0	74%	8%
2016 Planned	19	0	0	0	16	0	80,168,905,204	16.0	84%	19%

1-5e. Water Management Best Practice Metering Of Water Use

(Note: If a building has an advanced and a standard meter, only account for the advanced meter. If a building has multiple meters, ensure the utility metered is accounted/reported only once)

Fiscal Year	# of "Appropriate" Buildings Per EPAct 2005	Standard Meters			Advanced Meters			Total		Total % of Water Metered
		# of Buildings with Standard Meters	Estimated Amount of Purchased Water Metered (Gal/Yr)	Estimated Amount of On-Site Captured Water Metered (Gal/Yr)	# of Buildings with Advanced Meters	Estimated Amount of Purchased Water Metered (Gal/Yr)	Estimated Amount of On-Site Captured Water Metered (Gal/Yr)	# of Appropriate Buildings with Dedicated Meters	Cumulative % of "Appropriate" Buildings Metered	
2013 Report	39	4	13,528,718	0	2	27,976,615	0	7.0	18%	5%
2014 Planned	39	4	13,528,718	0	2	27,976,615	0	7.0	18%	5%
2015 Planned	39	4	13,528,718	0	11	318,110,296	0	16.0	41%	40%
2016 Planned	39	4	13,528,718	0	22	654,334,195	0	27.0	69%	81%

Sustainable Acquisition - Contract Review

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): E.O. 13514, E.O. 13423, EPAct 2005, EISA 2007

Instructions: Please enter FY 2013 data related to review of contracts for sustainable acquisition clauses. FY 2012 data from PPTRS has been included as an example of the updated format. If available, please enter the methodology used to determine the entered data.

Source: Site/Lab

Methodology

Y-12's General Terms and Conditions were reviewed and were determined to meet the Sustainable Acquisition requirements of Executive Order 13514.

Contract Review

PSO	Site #	Site	FY	Acquisition Category	Number of New Contract Actions	Number Reviewed	Number without Opportunity for any Sustainable Acquisition	Number Meeting All Sustainable Acquisition Requirements	Percentage of Relevant Contracts Meeting All Requirements	Additional Information	SPO Comments
NNSA	146	Y12	2012	Construction	59	50	33	17	100.0%	Y-12's General Terms and Conditions were reviewed and were determined to meet Sustainable Acquisition (SA) requirements of Executive Order (EO) 13514. Y-12 reviewed a random sampling of 85% of Fiscal Year 2012 new construction contract actions. 66% of the contracts reviewed were determined to have no opportunity for SA. 100% of the contracts reviewed that did have opportunity for SA satisfied the SA requirements by including SA requirements in contract Statement of Work (SOW), Terms and Conditions and/or specifications.	From PPTRS
NNSA	146	Y12	2012	Custodial	0	0	0	0	--	Y-12's General Terms and Conditions were reviewed and determined to meet Sustainable Acquisition (SA) requirements of Executive Order (EO) 13514. Y-12 has a just-in-time blanket agreement for providing all the various categories of custodial commodities utilized at Y-12. This blanket agreement contains an attachment listing the recycled-content and bio-based materials. Additionally, to support the Sustainable Acquisition goals, Y-12's Accelerated Vendor Inventory Delivery (AVID) vendors are required to sign an annual Sustainable Acquisition Program certification statement that states they will provide Y-12 with products that meet requirements for recycled content, bio-based content, Energy Star, WaterSense, alternative fuels and EPEAT, as applicable.	From PPTRS

PSO	Site #	Site	FY	Acquisition Category	Number of New Contract Actions	Number Reviewed	Number without Opportunity for any Sustainable Acquisition	Number Meeting All Sustainable Acquisition Requirements	Percentage of Relevant Contracts Meeting All Requirements	Additional Information	SPO Comments
NNSA	146	Y12	2012	Other (Optional)	0	0	0	0	--	N/A	From PPTRS
NNSA	146	Y12	2013	Construction	82	81	41	40	100.0%	Y-12 reviewed 99% of FY2013 new construction contract actions. 51% of the contracts reviewed were determined to have no opportunity for Sustainable Acquisition. 100% of the contracts reviewed that did have opportunity for Sustainable Acquisition satisfied the requirements by including the Sustainable Acquisition requirements in the contract Statement of Work (SOW), Terms and Conditions and/or specifications.	
NNSA	146	Y12	2013	Custodial	0	0	0	0	--	Y-12 has a just-in-time blanket agreement for providing all the various categories of custodial commodities utilized at the site. This blanket agreement contains an attachment listing the recycled-content and bio-based materials. Additionally, to support the Sustainable Acquisition goals, Y-12's Accelerated Vendor Inventory Delivery (AVID) vendors are reuqired to sign an annual Sustainable Acquisition Program certification statement that states they will provide Y-12 with products that meet the requirements for recycled content, bio-based content, Energy Star, WaterSense, alternative fuels and EPEAT, as applicable.	
NNSA	146	Y12	2013	Other (Optional)	0	0	0	0	--	N/A	

Facilities Utility/Fuel Consumption and Cost

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): NECPA, EPAct 2005, EISA 2007, DOE O 436.1, E.O. 13514

Instructions: Provide FY 2013 quarterly consumption and associated cost information for facilities, non-fleet vehicles and equipment, and fully serviced leases (voluntary in FY 2013) by utility/fuel type and address SPO requests. Conventional hydropower should be reported in this tab but separate from regular electricity for correct GHG and EUI accounting; do not report conventional hydropower in the renewable tabs. On-site non-renewable energy should not be reported in this tab. On-site generated and purchased renewable energy should be reported in tabs 3.2a and 3.2b, respectively. FY 2013 square footage should be estimated based on FIMS reports 008, 047, and 063. The SPO will update estimated square footage, if need be, based on the FIMS snapshot in mid-November. If historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column. For additional guidance see comments in row 9 of each column and the CEDR Technical Support Document.

Source: Site/Lab

Utility/Fuel Consumption and Cost													Notes		Estimated GHG Emissions			
PSO	Site #	Site	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU x 10^6	Cost (1,000 $)	$/Unit	Main Site Zip Code	Additional Information	SPO Notes	Scope	Anthropogenic $MtCO_2e$	Biogenic $MtCO_2e$	Scope 3 - T&D Loss, $MtCO_2e$
NNSA	146	Y12	Buildings	Coal	Short Ton	2003	1	16,277.000	405,785.610	682.773	$ 0.04	37831			1	38,195.382	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2003	1	79,233.400	270,344.361	3,202.897	$ 0.04	37831			2	54,585.617	0.000	3,595.609
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2003	1	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2003	1	36,603.000	37,627.884	187.768	$ 0.01	37831			1	1,996.987	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2003	1	13.987	1,930.206	17.548	$ 1.25	37831			1	143.239	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2003	1	31.775	3,971.875	38.568	$ 1.21	37831			1	279.894	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2003	2	28,829.000	718,706.970	1,189.449	$ 0.04	37831			1	67,649.731	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2003	2	75,099.380	256,239.085	2,974.665	$ 0.04	37831			2	51,737.601	0.000	3,408.008
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2003	2	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2003	2	28,302.000	29,094.456	177.593	$ 0.01	37831			1	1,544.101	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2003	2	19.324	2,666.712	26.394	$ 1.37	37831			1	197.894	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2003	2	33.933	4,241.625	44.812	$ 1.32	37831			1	298.903	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2003	3	12,243.000	305,217.990	495.858	$ 0.04	37831			1	28,729.254	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2003	3	82,739.800	282,308.198	3,657.729	$ 0.04	37831			2	57,001.253	0.000	3,754.730
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2003	3	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2003	3	91,413.000	93,972.564	583.301	$ 0.01	37831			1	4,987.312	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2003	3	16.001	2,208.138	21.765	$ 1.36	37831			1	163.864	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2003	3	30.696	3,837.000	40.735	$ 1.33	37831			1	270.390	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2003	4	4,091.000	101,988.630	166.613	$ 0.04	37831			1	9,599.884	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2003	4	82,739.800	282,308.198	3,827.322	$ 0.05	37831			2	57,001.253	0.000	3,754.730
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2003	4	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2003	4	137,131.000	140,970.668	801.703	$ 0.01	37831			1	7,481.595	0.000	0.000
NNSA	146	Y12	Buildings	Square Feet	1,000 Square Feet	2003	4	6,989.084	0.000		$ -	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2003	4	14.101	1,945.938	18.093	$ 1.28	37831			1	144.406	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2003	4	34.228	4,278.500	45.466	$ 1.33	37831			1	301.502	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2004	1	16,346.000	407,505.780	672.500	$ 0.04	37831			1	38,357.297	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2004	1	73,584.800	251,071.338	3,359.822	$ 0.05	37831			2	50,694.174	0.000	3,339.276
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2004	1	39,325.000	40,426.100	243.655	$ 0.01	37831			1	2,145.494	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2004	1	12.366	1,706.508	15.705	$ 1.27	37831			1	126.638	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2004	1	30.988	3,873.500	39.964	$ 1.29	37831			1	272.962	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2004	2	26,768.000	667,326.240	1,122.034	$ 0.04	37831			1	62,813.417	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2004	2	71,927.130	245,415.368	3,367.182	$ 0.05	37831			2	49,552.169	0.000	3,264.051
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2004	2	67,751.000	69,648.028	394.370	$ 0.01	37831			1	3,696.360	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2004	2	16.829	2,322.402	23.480	$ 1.40	37831			1	172.343	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2004	2	34.699	4,337.375	48.417	$ 1.40	37831			1	305.650	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2004	3	11,422.000	284,750.460	484.095	$ 0.04	37831			1	26,802.707	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2004	3	73,719.040	251,529.364	3,324.322	$ 0.05	37831			2	50,786.655	0.000	3,345.368

Utility/Fuel Consumption and Cost													Notes		Estimated GHG Emissions			
PSO	Site #	Site	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU x 10^6	Cost (1,000 $)	$/Unit	Main Site Zip Code	Additional Information	SPO Notes	Scope	Anthropogenic $MtCO_2e$	Biogenic $MtCO_2e$	Scope 3 - T&D Loss, $MtCO_2e$
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2004	3	44,081.000	45,315.268	304.524	$ 0.01	37831			1	2,404.972	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2004	3	15.052	2,077.176	21.709	$ 1.44	37831			1	154.145	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2004	3	41.175	5,146.875	66.107	$ 1.61	37831			1	362.695	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2004	4	7,154.000	178,349.220	301.363	$ 0.04	37831			1	16,787.477	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2004	4	76,865.450	262,264.915	3,500.542	$ 0.05	37831			2	52,954.285	0.000	3,488.152
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2004	4	169,244.000	173,982.832	1,040.850	$ 0.01	37831			1	9,233.617	0.000	0.000
NNSA	146	Y12	Buildings	Square Feet	1,000 Square Feet	2004	4	7,567.481	0.000		$ -	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2004	4	13.881	1,915.578	21.094	$ 1.52	37831			1	142.153	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2004	4	35.901	4,487.625	59.866	$ 1.67	37831			1	316.238	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2005	1	11,901.000	296,691.930	515.594	$ 0.04	37831			1	27,926.721	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2005	1	70,645.460	241,042.310	3,073.224	$ 0.04	37831			2	48,669.198	0.000	3,205.889
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2005	1	35,140.000	36,123.920	266.918	$ 0.01	37831			1	1,917.169	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2005	1	8.628	1,190.664	16.566	$ 1.92	37831			1	88.358	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2005	1	29.640	3,705.000	39.673	$ 1.34	37831			1	261.088	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2005	2	29,807.000	743,088.510	1,431.138	$ 0.05	37831			1	69,944.692	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2005	2	68,625.000	234,148.500	3,206.427	$ 0.05	37831			2	47,277.259	0.000	3,114.200
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2005	2	23,137.000	23,784.836	180.730	$ 0.01	37831			1	1,262.309	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2005	2	8.703	1,201.014	16.710	$ 1.92	37831			1	89.126	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2005	2	25.637	3,204.625	51.787	$ 2.02	37831			1	225.827	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2005	3	12,575.000	313,494.750	675.237	$ 0.05	37831			1	29,508.320	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2005	3	69,223.000	236,188.876	3,226.938	$ 0.05	37831			2	47,689.235	0.000	3,141.338
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2005	3	29,536.000	30,363.008	284.596	$ 0.01	37831			1	1,611.426	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2005	3	4.167	575.046	8.001	$ 1.92	37831			1	42.674	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2005	3	15.657	1,957.125	32.165	$ 2.05	37831			1	137.917	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2005	4	6,049.000	150,801.570	344.450	$ 0.06	37831			1	14,194.499	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2005	4	76,612.000	261,400.144	3,529.385	$ 0.05	37831			2	52,779.678	0.000	3,476.650
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2005	4	37,967.000	39,030.076	353.048	$ 0.01	37831			1	2,071.404	0.000	0.000
NNSA	146	Y12	Buildings	Square Feet	1,000 Square Feet	2005	4	7,409.264	0.000		$ -	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2005	4	13.725	1,894.050	26.352	$ 1.92	37831			1	140.556	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2005	4	34.564	4,320.500	71.187	$ 2.06	37831			1	304.461	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2006	1	14,318.000	356,947.740	858.540	$ 0.06	37831			1	33,598.420	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2006	1	66,929.480	228,363.386	3,008.592	$ 0.04	37831			2	46,109.179	0.000	3,037.258
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2006	1	30,534.000	31,388.952	443.339	$ 0.01	37831			1	1,665.874	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2006	1	8.117	1,120.146	19.138	$ 2.36	37831			1	83.125	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2006	1	23.661	2,957.625	56.864	$ 2.40	37831			1	208.421	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2006	2	24,153.000	602,134.290	1,520.197	$ 0.06	37831			1	56,677.094	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2006	2	64,114.330	218,758.094	2,910.597	$ 0.05	37831			2	44,169.760	0.000	2,909.506
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2006	2	22,140.000	22,759.920	238.247	$ 0.01	37831			1	1,207.914	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2006	2	6.940	957.720	16.129	$ 2.32	37831			1	71.071	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2006	2	22.840	2,855.000	48.740	$ 2.13	37831			1	201.189	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2006	3	13,203.000	329,150.790	856.267	$ 0.06	37831			1	30,981.976	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2006	3	67,593.130	230,627.760	3,421.025	$ 0.05	37831			2	46,566.382	0.000	3,067.374
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2006	3	26,871.000	27,623.388	255.993	$ 0.01	37831			1	1,466.028	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2006	3	6.283	867.054	15.071	$ 2.40	37831			1	64.343	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2006	3	22.364	2,795.500	53.616	$ 2.40	37831			1	196.996	0.000	0.000

Utility/Fuel Consumption and Cost													Notes		Estimated GHG Emissions			
PSO	Site #	Site	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU x 10^6	Cost (1,000 $)	$/Unit	Main Site Zip Code	Additional Information	SPO Notes	Scope	Anthropogenic $MtCO_2e$	Biogenic $MtCO_2e$	Scope 3 - T&D Loss, $MtCO_2e$
NNSA	146	Y12	Buildings	Coal	Short Ton	2006	4	6,257.000	155,987.010	423.637	$ 0.07	37831			1	14,682.589	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2006	4	73,385.910	250,392.725	3,683.403	$ 0.05	37831			2	50,557.154	0.000	3,330.250
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2006	4	37,229.000	38,271.412	311.486	$ 0.01	37831			1	2,031.140	0.000	0.000
NNSA	146	Y12	Buildings	Square Feet	1,000 Square Feet	2006	4	6,728.940	0.000		$ -	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2006	4	7.923	1,093.374	20.681	$ 2.61	37831			1	81.138	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2006	4	23.674	2,959.250	60.446	$ 2.55	37831			1	208.535	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2007	1	14,786.170	368,619.218	1,046.861	$ 0.07	37831			1	34,697.021	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2007	1	64,923.000	221,517.276	2,856.612	$ 0.04	37831			2	44,726.871	0.000	2,946.204
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2007	1	26,288.940	27,025.030	229.502	$ 0.01	37831			1	1,434.272	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2007	1	6.199	855.462	16.032	$ 2.59	37831			1	63.483	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2007	1	23.602	2,950.250	50.843	$ 2.15	37831			1	207.901	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2007	1	362.050	0.000	189.962	$ 0.52	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2007	2	22,678.620	565,377.997	1,605.646	$ 0.07	37831			1	53,217.335	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2007	2	62,601.000	213,594.612	2,754.444	$ 0.04	37831			2	43,127.194	0.000	2,840.831
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2007	2	20,771.380	21,352.979	181.333	$ 0.01	37831			1	1,133.245	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2007	2	7.008	967.104	17.488	$ 2.50	37831			1	71.768	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2007	2	22.316	2,789.500	47.225	$ 2.12	37831			1	196.573	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2007	2	310.261	0.000	174.543	$ 0.56	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2007	3	11,828.440	294,883.009	837.453	$ 0.07	37831			1	27,756.453	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2007	3	63,446.000	216,477.752	2,791.624	$ 0.04	37831			2	43,709.333	0.000	2,879.177
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2007	3	24,580.080	25,268.322	214.584	$ 0.01	37831			1	1,341.040	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2007	3	4.718	651.084	12.826	$ 2.72	37831			1	48.316	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2007	3	19.848	2,481.000	50.437	$ 2.54	37831			1	174.834	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2007	3	358.023	0.000	313.916	$ 0.88	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2007	4	6,397.194	159,482.046	452.922	$ 0.07	37831			1	15,011.567	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2007	4	68,515.000	233,773.180	3,014.660	$ 0.04	37831			2	47,201.478	0.000	3,109.209
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2007	4	32,408.350	33,315.784	282.925	$ 0.01	37831			1	1,768.135	0.000	0.000
NNSA	146	Y12	Buildings	Square Feet	1,000 Square Feet	2007	4	6,499.541	0.000		$ -	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2007	4	5.111	705.318	15.123	$ 2.96	37831			1	52.341	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2007	4	16.142	2,017.750	43.428	$ 2.69	37831			1	142.189	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2007	4	339.666	0.000	297.821	$ 0.88	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2008	1	11,177.000	278,642.610	793.309	$ 0.07	37831			1	26,227.793	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2008	1	66,175.276	225,790.042	2,941.531	$ 0.04	37831			2	45,589.591	0.000	3,003.032
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2008	1	35,902.000	36,907.256	225.592	$ 0.01	37831			1	1,958.742	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2008	1	4.872	672.336	15.232	$ 3.13	37831			1	49.893	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2008	1	13.500	1,687.500	34.620	$ 2.56	37831			1	118.916	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2008	1	287.387	0.000	359.480	$ 1.25	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2008	2	22,439.000	559,404.270	1,459.208	$ 0.07	37831			1	52,655.046	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2008	2	66,241.238	226,015.104	2,815.933	$ 0.04	37831			2	45,635.034	0.000	3,006.025
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2008	2	42,893.000	44,094.004	271.301	$ 0.01	37831			1	2,340.157	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2008	2	5.279	728.502	17.451	$ 3.31	37831			1	54.061	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2008	2	16.397	2,049.625	45.226	$ 2.76	37831			1	144.435	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2008	2	278.938	0.000	346.324	$ 1.24	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2008	3	10,804.000	269,343.720	667.171	$ 0.06	37831			1	25,352.516	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2008	3	64,342.184	219,535.532	3,161.053	$ 0.05	37831			2	44,326.734	0.000	2,919.846

Utility/Fuel Consumption and Cost													Notes		Estimated GHG Emissions			
PSO	Site #	Site	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU x 10^6	Cost (1,000 $)	$/Unit	Main Site Zip Code	Additional Information	SPO Notes	Scope	Anthropogenic $MtCO_2e$	Biogenic $MtCO_2e$	Scope 3 - T&D Loss, $MtCO_2e$
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2008	3	32,849.000	33,768.772	353.184	$ 0.01	37831			1	1,792.176	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2008	3	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2008	3	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2008	3	261.559	0.000	318.598	$ 1.22	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2008	4	7,033.000	175,332.690	557.393	$ 0.08	37831			1	16,503.540	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2008	4	71,770.012	244,879.281	3,630.208	$ 0.05	37831			2	49,443.927	0.000	3,256.921
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2008	4	33,424.000	34,359.872	663.480	$ 0.02	37831			1	1,823.547	0.000	0.000
NNSA	146	Y12	Buildings	Square Feet	1,000 Square Feet	2008	4	7,037.070	0.000		$ -	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Diesel	1,000 Gallons	2008	4	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Vehicles and Equipment	Gasoline	1,000 Gallons	2008	4	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2008	4	343.875	0.000	402.710	$ 1.17	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2009	1	13,814.000	344,383.020	1,657.753	$ 0.12	37831			1	32,415.741	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2009	1	66,609.556	227,271.805	4,126.500	$ 0.06	37831			2	45,888.776	0.000	3,022.740
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2009	1	46,542.000	47,845.176	375.673	$ 0.01	37831			1	2,539.239	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2009	1	320.714	0.000	425.880	$ 1.33	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2009	2	29,371.000	732,219.030	3,979.673	$ 0.14	37831			1	68,921.581	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2009	2	66,040.241	225,329.302	3,860.819	$ 0.06	37831			2	45,496.562	0.000	2,996.904
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2009	2	62,902.000	64,663.256	433.057	$ 0.01	37831			1	3,431.808	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2009	2	293.724	0.000	388.401	$ 1.32	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2009	3	12,475.000	311,001.750	1,675.192	$ 0.13	37831			1	29,273.662	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2009	3	66,444.558	226,708.832	3,518.385	$ 0.05	37831			2	45,775.105	0.000	3,015.252
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2009	3	57,251.000	58,854.028	351.801	$ 0.01	37831			1	3,123.501	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2009	3	273.569	0.000	362.723	$ 1.33	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2009	4	6,343.000	158,130.990	868.631	$ 0.14	37831			1	14,884.396	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2009	4	71,034.528	242,369.810	3,567.267	$ 0.05	37831			2	48,937.236	0.000	3,223.545
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2009	4	42,254.000	43,437.112	219.383	$ 0.01	37831			1	2,305.294	0.000	0.000
NNSA	146	Y12	Buildings	Square Feet	1,000 Square Feet	2009	4	7,146.385	0.000		$ -	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2009	4	293.424	0.000	387.998	$ 1.32	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2010	1	15,208.000	379,135.440	1,746.954	$ 0.11	37831			1	35,686.882	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2010	1	65,152.000	222,298.624	2,916.830	$ 0.04	37831			2	44,884.634	0.000	2,956.596
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2010	1	66,689.000	68,556.292	300.627	$ 0.00	37831			1	3,638.420	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2010	1	270.168	0.000	357.328	$ 1.32	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2010	2	7,698.000	191,911.140	589.159	$ 0.08	37831			1	18,064.020	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2010	2	66,509.000	226,928.708	2,791.514	$ 0.04	37831			2	45,819.501	0.000	3,018.176
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2010	2	412,347.000	423,892.716	2,367.221	$ 0.01	37831			1	22,496.834	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2010	2	261.897	0.000	346.370	$ 1.32	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2010	3	962.000	23,982.660	53.384	$ 0.06	37831			1	2,257.416	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2010	3	65,299.667	222,802.464	3,268.401	$ 0.05	37831			2	44,986.365	0.000	2,963.297
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2010	3	304,464.000	312,988.992	1,509.151	$ 0.00	37831			1	16,610.952	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2010	3	239.410	0.000	316.795	$ 1.32	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2010	4	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2010	4	73,781.212	251,741.495	3,946.662	$ 0.05	37831			2	50,829.486	0.000	3,348.189
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2010	4	159,612.000	164,081.136	948.461	$ 0.01	37831			1	8,708.114	0.000	0.000
NNSA	146	Y12	Buildings	Square Feet	1,000 Square Feet	2010	4	7,184.211	0.000		$ -	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2010	4	299.581	0.000	396.257	$ 1.32	37831			NA	0.000	0.000	0.000

Utility/Fuel Consumption and Cost													Notes		Estimated GHG Emissions			
PSO	Site #	Site	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU x 10^6	Cost (1,000 $)	$/Unit	Main Site Zip Code	Additional Information	SPO Notes	Scope	Anthropogenic $MtCO_2e$	Biogenic $MtCO_2e$	Scope 3 - T&D Loss, $MtCO_2e$
NNSA	146	Y12	Buildings	Coal	Short Ton	2011	1	0.000	0.000		NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2011	1	63,886.000	217,979.032	3,616.880	$ 0.06	37831			2	44,892.028	0.000	2,957.083
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2011	1	492.293	67,936.434	1,501.494	$ 3.05	37831			1	5,041.495	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2011	1	283,679.000	291,622.012	1,094.806	$ 0.00	37831			1	15,476.963	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2011	1	258.787	0.000	342.388	$ 1.32	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2011	2	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2011	2	64,715.000	220,807.580	3,470.045	$ 0.05	37831			2	45,474.557	0.000	2,995.455
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2011	2	749.431	103,421.478	2,393.207	$ 3.19	37831			1	7,674.804	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2011	2	446,396.000	458,895.088	3,009.407	$ 0.01	37831			1	24,354.480	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2011	2	233.925	0.000	309.572	$ 1.32	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2011	3	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2011	3	64,898.532	221,433.791	3,276.004	$ 0.05	37831			2	45,603.523	0.000	3,003.950
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2011	3	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2011	3	300,895.000	309,320.060	1,390.097	$ 0.00	37831			1	16,416.234	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2011	3	231.333	0.000	305.360	$ 1.32	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2011	4	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2011	4	69,804.713	238,173.681	4,612.372	$ 0.07	37831			2	49,051.046	0.000	3,231.041
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2011	4	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2011	4	173,036.000	177,881.008	854.741	$ 0.00	37831			1	9,440.501	0.000	0.000
NNSA	146	Y12	Buildings	Square Feet	1,000 Square Feet	2011	4	7,143.781	0.000		$ -	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2011	4	273.159	0.000	352.375	$ 1.29	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2012	1	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2012	1	64,914.400	221,487.933	3,056.159	$ 0.05	37831			2	40,189.643	0.000	2,647.332
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2012	1	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2012	1	288,721.000	296,805.188	1,244.659	$ 0.00	37831			1	15,752.045	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2012	1	241.453	0.000	311.474	$ 1.29	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2012	2	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2012	2	63,088.680	215,258.576	3,108.383	$ 0.05	37831			2	39,059.307	0.000	2,572.876
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2012	2	85.782	11,837.916	321.143	$ 3.74	37831			1	878.480	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2012	2	508,989.000	523,240.692	2,215.494	$ 0.00	37831			1	27,769.430	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2012	2	270.879	0.000	349.434	$ 1.29	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2012	3	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2012	3	60,873.260	207,699.563	3,079.131	$ 0.05	37831			2	37,687.702	0.000	2,482.527
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2012	3	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2012	3	255,104.000	262,246.912	842.977	$ 0.00	37831			1	13,917.968	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2012	3	213.954	0.000	276.001	$ 1.29	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2012	4	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2012	4	63,356.910	216,173.777	4,037.159	$ 0.06	37831			2	39,225.373	0.000	2,583.815
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2012	4	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2012	4	154,474.000	158,799.272	750.407	$ 0.00	37831			1	8,427.795	0.000	0.000
NNSA	146	Y12	Buildings	Square Feet	1,000 Square Feet	2012	4	6,858.240	0.000		$ -	37831		SPO Note: Different Sq.Ft - CEDR vs FIMS Snapshot	NA	0.000	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2012	4	236.428	0.000	304.992	$ 1.29	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2013	1	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2013	1	58,008.903	197,926.377	3,063.505	$ 0.05	37831			2	35,914.328	0.000	2,365.713
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2013	1	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000

Utility/Fuel Consumption and Cost													Notes		Estimated GHG Emissions			
PSO	Site #	Site	Category	Subcategory	Usage Unit	FY	QTR	Usage Amount	BTU x 10^6	Cost (1,000 $)	$/Unit	Main Site Zip Code	Additional Information	SPO Notes	Scope	Anthropogenic $MtCO_2e$	Biogenic $MtCO_2e$	Scope 3 - T&D Loss, $MtCO_2e$
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2013	1	264,527.178	271,933.939	960.338	$ 0.00	37831			1	14,432.078	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2013	1	195.033	0.000	251,593.000	$ 1,290.00	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2013	2	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2013	2	57,703.606	196,884.704	3,032.784	$ 0.05	37831			2	35,725.314	0.000	2,353.262
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2013	2	292.237	40,328.706	1,120.345	$ 3.83	37831			1	2,992.753	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2013	2	466,559.539	479,623.206	2,081.386	$ 0.00	37831			1	25,454.563	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2013	2	217.629	0.000	308,457.000	$ 1,417.35	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2013	3	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2013	3	57,466.655	196,076.227	2,636.903	$ 0.05	37831			2	35,578.613	0.000	2,343.599
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2013	3	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2013	3	297,803.918	306,142.428	1,254.233	$ 0.00	37831			1	16,247.591	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2013	3	192.543	0.000	265,336.000	$ 1,378.06	37831			NA	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Coal	Short Ton	2013	4	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Electricity - Grid	Megawatt Hour	2013	4	63,417.285	216,379.776	3,894.027	$ 0.06	37831			2	39,262.753	0.000	2,586.277
NNSA	146	Y12	Buildings	Fuel Oil	1,000 Gallons	2013	4	0.000	0.000	0.000	NA	37831			1	0.000	0.000	0.000
NNSA	146	Y12	Buildings	Natural Gas	1,000 Cubic Feet	2013	4	128,599.039	132,199.812	459.474	$ 0.00	37831			1	7,016.108	0.000	0.000
NNSA	146	Y12	Buildings	Square Feet	1,000 Square Feet	2013	4	7,383.047	0.000		$ -	37831	GSF includes leased facilities 301BCR & 602SCA, 998T-A2/A3. Increase from FY2012 due to CTF		NA	0.000	0.000	0.000
NNSA	146	Y12	Water	Potable	Million Gallons	2013	4	218.134	0.000	243,727.000	$ 1,117.33	37831			NA	0.000	0.000	0.000

List of Operating On-Site Renewable Energy Systems

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): EPAct 2005, DOE O 436.1, E.O. 13423, E.O. 13514

Instructions: Update the list of currently operating on-site renewable energy systems and address SPO requests. For additional guidance see comments in row 9 of each column and the CEDR Technical Support Document. Purchased renewable energy should be listed in the "Purchased RE" worksheet. Newly proposed or potential on-site renewable energy systems should be listed in the "Conservation & RE Measures" worksheet. Edited and new data cells should be highlighted.

Source: Site/Lab

System Information															
PSO	Site #	Site	System Description/Name	Location Description (e.g., building name, etc.)	System Location (Zip Code)	Year Installed (YYYY)	End Use Category	Siting Status - On Federal or Indian Land?	% of RECs Retained	On or Off Grid?	Does the site own the T&D system that delivers the electricity?	Scope 1 or 2 System?	Generator Nameplate Capacity (MW)	System Type/Category	Estimated Annual Renewable Electricity Output (MWh/Yr)
NNSA	146	Y12	Solar Powered Lighting	Lighting for remote storage unit	37831	2008	Goal Subject	On Federal Land, On User Site	100%	Electric Off Grid	Yes	Scope 1	0.000040	Solar Photovoltaic	0.180
NNSA	146	Y12	Remote Battery Charging Station	Elza 2 switchyard	37831	2004	Goal Subject	On Federal Land, On User Site	100%	Electric Off Grid	Yes	Scope 1	0.000040	Solar Photovoltaic	0.180
NNSA	146	Y12	Portable Solar Lighting	Spot lighting for United Way signage	37831	2009	Goal Subject	On Federal Land, On User Site	100%	Electric Off Grid	Yes	Scope 1	0.000040	Solar Photovoltaic	0.180
NNSA	146	Y12	Portable Solar Digital Signage	Speed limit signs	37831	2008	Goal Subject	On Federal Land, On User Site	100%	Electric Off Grid	Yes	Scope 1	0.000040	Solar Photovoltaic	0.180
NNSA	146	Y12	Solar Powered Lighting	Bear Creek Road Flag-pole	37831	2010	Goal Subject	On Federal Land, On User Site	100%	Electric Off Grid	Yes	Scope 1	0.000040	Solar Photovoltaic	0.180
NNSA	146	Y12	ISCO Solar Panels - Power to Water Sampling Equipment	9422-8/S24 Bear Creek	37831	Before 19	Goal Subject	On Federal Land, On User Site	100%	Electric Off Grid	Yes	Scope 1	0.000600	Solar Photovoltaic	0.270
NNSA	146	Y12	ISCO Portable Solar Panels - Power to Water Sampling	Open to be assigned	37831	Before 19	Goal Subject	On Federal Land, On User Site	100%	Electric Off Grid	Yes	Scope 1	0.000050	Solar Photovoltaic	0.225
NNSA	146	Y12	ISCO Solar Panels - Power to Water Sampling Equipment	Outfalls	37831	Before 19	Goal Subject	On Federal Land, On User Site	100%	Electric Off Grid	Yes	Scope 1	0.000070	Solar Photovoltaic	0.315
NNSA	146	Y12	ISCO Portable Solar Panels (20) - Power to Water Sampling	Storage - 9108 Room 120	37831	Before 19	Goal Subject	On Federal Land, On User Site	100%	Electric Off Grid	Yes	Scope 1	0.000360	Solar Photovoltaic	1.440
NNSA	146	Y12	Solar lighted crosswalk	New Hope Parking Lot	37831	2012	Goal Subject	On Federal Land, On User Site	100%	Electric Off Grid	Yes	Scope 1	0.000170	Solar Photovoltaic	1.489

Production/Consumption Information					Cost	Biomass Fuel Information					Notes	
Estimated Annual Renewable Electricity Consumed (MWh/Yr)	Estimated EPAct 2005 Bonus (MWh/Yr)	Estimated Annual GHG Emissions Avoided ($MtCO_2e$/Yr)	Estimated Annual Renewable Thermal Output (10^6 BTU/Yr)	Estimated Annual Renewable Thermal Consumed (10^6 BTU/Yr)	Implementation Cost ($)	Principal Biomass Fuel Type	Principal Biomass Fuel Use (10^6 BTU/Yr)	Secondary/ Blend Fuel Type	Secondary/ Blend Fuel Use (10^6 BTU/Yr)	Fuel Costs ($)	Additional Information	SPO Notes
0.180	0.180	0.164			$ 2,000.00							
0.180	0.180	0.164			$ 2,000.00							
0.180	0.180	0.164			$ 2,000.00							
0.180	0.180	0.164			$ 2,000.00							
0.180	0.180	0.164			$ 2,000.00							
0.270	0.270	0.237			$ 3,000.00							
0.225	0.225	0.197			$ 5,000.00							
0.315	0.315	0.276			$ 7,000.00							
1.440	1.440	1.261			$ 20,000.00							
1.489	1.489	1.304			$ 40,000.00							

List of Purchased Renewable Energy

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): EPAct 2005, DOE O 436.1, E.O. 13423, E.O. 13514

Instructions: Update the list of purchased renewable energy resources and address SPO requests. Conventional hydropower should be reported in tab 3.1 for correct accounting; do not report conventional hydropower in this tab. For additional guidance see comments in row 9 of each column and the CEDR Technical Support Document. On-site operational renewable energy should be listed in the "Operating On-Site Renewables" worksheet. Edited and new data cells should be highlighted.

Source: Site/Lab

Purchase Information										Consumption Information						Cost		Notes	
PSO	Site #	Site	Type of Renewable Energy Purchased	System Type/Category	Source Location (Zip Code)	Service Year (YYYY)	Purchase Year (FY)	End Use Category	Siting Status - On Federal or Indian Land?	Total Renewable Electricity Purchased (MWh/Yr)	Estimated Annual GHG Emissions Avoided ($MtCO_2e$/Yr)	Scope 3 - T&D Loss, $MtCO_2e$	Purchased Renewable Energy Biomass Emissions MtCO2e	FY 2008 Anthropogenic MtCO2e	Total Renewable Thermal Purchased (10^6 BTU/Yr)	Annual Cost ($)	$/Unit	Additional Information	SPO Notes
NNSA	146	Y12	Renewable Energy Credits	Wood and wood residuals	80301		2008	Goal Subject	NOT on Federal or Indian Land, Transmi	3,958.200	2,916.507	192.113	114.468	0.000		$ 34,473.00	$ 8.71		
NNSA	146	Y12	Renewable Energy Credits	Wood and wood residuals	80301		2009	Goal Subject	NOT on Federal or Indian Land, Transmi	4,027.146	2,967.308	195.459	116.461	0.000		$ 35,076.44	$ 8.71		
NNSA	146	Y12	Renewable Energy Credits	Wind	50461		2010	Goal Subject	NOT on Federal or Indian Land, Transmi	21,000.000	20,676.543	1,361.981	0.000	0.000		$ 23,800.00	$ 1.13		
NNSA	146	Y12	Renewable Energy Credits	Wind	50461		2011	Goal Subject	NOT on Federal or Indian Land, Transmi	21,000.000	19,051.284	1,254.924	0.000	0.000		$ 23,800.00	$ 1.13		
NNSA	146	Y12	Renewable Energy Credits	Wind	50461	Before 1999	2012	Goal Subject	NOT on Federal or Indian Land, Transmi	21,000.000	20,268.455	1,335.100	0.000	0.000		$ 23,800.00	$ 1.13		
NNSA	146	Y12	Renewable Energy Credits	Wood and wood residuals	31323	2012	2013	Goal Subject	NOT on Federal or Indian Land, Transmi	19,000.000	14,046.544	925.257	549.463	0.000		$ 25,650.00	$ 1.35		

Conservation and Renewable Energy Measures List

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): EISA 2007, DOE O 436.1

Instructions: Update the list of conservations and renewable energy measures/projects and address SPO requests. For additional guidance see comments in row 10/11 of each column and the CEDR Technical Support Document.

Source: Site/Lab June 2012 EISA Sec 432 report

Measure/Project Description													
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
PSO	Site #	Site	HQ Measure #	If Covered, EISA S432 Reporting Year (YYYY)	Has this measure been included in an official DOE budget requests? If yes, provide Project/Measure #	Site Project #	Conservation Measure(s) Status	Conservation Measure(s) Type	Conservation Measure(s) Name or Description	Measure(s) Location (Zip Code)	Is this a multiple or single facility ECM?	Does the measure contribute to the reduction of deferred maintenance?	Is this effort/measure beyond typical O&M improvement to meet a goal?
NNSA	146	Y12	NNSA-0146-0002	2010			Operational	Other	Stationary Fuel Cell Feasibility Study	37831		No	Yes
NNSA	146	Y12	NNSA-0146-0003	2009		2.1	Operational	Chiller Plant Improvements	Chiller Plant Improvement - Ph 1	37831		Yes	No
NNSA	146	Y12	NNSA-0146-0004	2009		7.1	Operational	Chilled Water/Hot Water/Steam Distribution Systems	Condensate Return System Modification - Ph 1	37831		No	No
NNSA	146	Y12	NNSA-0146-0005	2009		7.2	Operational	Chilled Water/Hot Water/Steam Distribution Systems	Steam Trap Improvement - Ph 1	37831		Yes	No
NNSA	146	Y12	NNSA-0146-0006	2009		16.1/FIS 16	Operational	Water and Sewer Conservation Systems	Demineralized Water Production Facility Replacement - Ph 2	37831		Yes	No
NNSA	146	Y12	NNSA-0146-0007	2010		06-D-603	Operational	Chilled Water/Hot Water/Steam Distribution Systems	Natural Gas–fired Steam Plant Replacement of Coal-Fired Plant	37831		Yes	No
NNSA	146	Y12	NNSA-0146-0008	2010		06-D-160.4	Operational	Water and Sewer Conservation Systems	Potable Water Supply and System Repairs	37831	Multiple	Yes	No
NNSA	146	Y12	NNSA-0146-0010	2009		Y12-R-TC11-01	Cancelled	Photovoltaic	Renewable energy projects (Solar/Load Sharing/ Biomass/Photovoltaic)	37831		No	Yes
NNSA	146	Y12	NNSA-0146-0011	2009		Y12-E-TC5-01	Operational	Lighting Improvements	9212 A2 Relamping	37831		Yes	No
NNSA	146	Y12	NNSA-0146-0016	2009			Operational	Other	Feasibility of Renewable Energy Options	37831		No	Yes
NNSA	146	Y12	NNSA-0146-0017	2009		3.1	Cancelled	Building Automation Systems/EMCS	Building Management System Improvement - Evaluate for ESPC DO#3	37831	Multiple	Yes	No
NNSA	146	Y12	NNSA-0146-0024	2009		Y12-E-TC2-01	Operational	Chilled Water/Hot Water/Steam Distribution Systems	Chiller Tube Cleaning	37831		No	No
NNSA	146	Y12	NNSA-0146-0025	2009		Y12-E-TC12-01	Operational	Other	Electrical Reroute (9201-5 and 9204-4)	37831		No	No
NNSA	146	Y12	NNSA-0146-0028	2009		Y12-E-TC7-02	Identified	Chilled Water/Hot Water/Steam Distribution Systems	Steam and Brine Distribution Piping and Insulation Repair	37831	Multiple	Yes	No
NNSA	146	Y12	NNSA-0146-0030	2009		Y12-E-TC18-01	Identified	Advanced Metering Systems	Water Advanced Metering Systems Installations	37831	Multiple	No	Yes
NNSA	146	Y12	NNSA-0146-0030	2009		Y12-E-TC18-01	Identified	Advanced Metering Systems	9720-82 Advanced water meter	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0030	2009		Y12-E-TC18-01	Identified	Advanced Metering Systems	9401-7 Advanced water meter	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0031	2009		Y12-E-TC4-01	Cancelled	Electric Motors and Drives	Controllable laboratory exhaust fans	37831	Multiple	No	No
NNSA	146	Y12	NNSA-0146-0032	Not Covered		Y12-E-TC18-02	Awarded/Approved	Advanced Metering Systems	9710-03 Advanced electrical meter	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0032	Not Covered		Y12-E-TC18-02	Verified	Advanced Metering Systems	9103 Advanced electrical meter	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0032	Not Covered		Y12-E-TC18-02	Verified	Advanced Metering Systems	9733-05 Advanced electrical meter repair	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0032	2009		Y12-E-TC18-02	Operational	Advanced Metering Systems	Electricity Advanced Metering Systems Installations	37831	Multiple	No	Yes
NNSA	146	Y12	NNSA-0146-0033	2009		UMP STM-004	Verified	Advanced Metering Systems	Steam Advanced Metering Systems Installation in buildings	37831	Multiple	No	Yes

Funding Overview					Measurement & Verification					Source Savings/Renewable Energy Output						
(o)	(p)	(q)	(r)	(s)	(t)	(u)		(v)	(w)	(x)	(y)	(z)	(aa)	(ab)	(ac)	(ad)
Funding Source/Type (Actual or Potential)	Starting Year of Measure Implementation (Anticipated or Actual - YYYY)	Completion/ Operational Year of Measure (Anticipated or Actual --	Estimated Service Life	Estimated Implementation Cost ($)	Are there plans to measure and verify the performance of this	If M&V has been			Is this a energy saving measure or renewable energy system?	Provide estimated energy saved or switched for each energy type, as applicable. If there are no savings associated with the meas						
						Type of M&V	MM	YYYY		Estimated Annual Electricity Saved (MWh/Yr)	Estimated Annual Fuel Oil Saved (10^3 Gal/Yr)	Estimated Annual Natural Gas Saved (10^3 Cf/Yr)	Estimated Annual LPG/Propane Saved (10^3 Gal/Yr)	Estimated Annual Coal Saved (Short Ton/Yr)	Estimated Annual Steam Saved (10^9 BTU/Yr)	Estimated Annual Other Saved (10^9 BTU/Yr)
Other	2010	2010	25	$117,000					Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2010	2011	25	$5,722,651	Yes	B - Retrofit	Apr	2013	Energy Saving ECM	9,996,276.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2010	2011	25	$4,539,321	Yes	B - Retrofit	Apr	2013	Energy Saving ECM	-7,513.000	0.000	37,505.000	0.000	0.000	0.000	0.000
ESPC	2010	2011	25	$1,997,488	Yes	A - Retrofit	Apr	2013	Energy Saving ECM	0.000	0.000	45,616.000	0.000	0.000	0.000	0.000
ESPC	2010	2012	25	$3,578,990	Yes	B - Retrofit	Apr	2013	Energy Saving ECM	304,726.000	0.000	609.000	0.000	0.000	0.000	0.000
Line Item	2008	2010	25	$61,500,000					Energy Saving ECM	6,907.148	0.000	0.000	0.000	61,761.856	0.000	0.000
Line Item	2008	2010	25	$62,500,000					Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2011	2016	15	$55,575,000	TBD				Fuel Switching RE	8,072.195	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2010	2012	10	$869,589					Energy Saving ECM	1,314.365	0.000	0.000	0.000	0.000	0.000	0.000
Other	2010	2010	25	$0					Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2012	2013	25	$5,137,089	TBD				Energy Saving ECM	3,230.597	0.000	21,621.000	0.000	0.000	0.000	0.000
M&R Indirect	2010	2012	5	$80,000					Energy Saving ECM	2,133.608	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2011	2012	25	$1,200,000					Energy Saving ECM	1,371.428	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2015	2012	25	$12,000,000	TBD				Energy Saving ECM	0.000	0.000	31,567.273	0.000	0.000	0.000	0.000
Unknown	2012	2015	25	$2,450,000	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2012	2014	25	$9,000	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2012	2014	25	$9,000	TBD				Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2011	2011	25	$500,000					Energy Saving ECM	3.947	0.000	4.367	0.000	0.000	0.000	0.000
Other	2012	2012	25	$9,000	TBD				Energy Saving ECM	46.683	0.000	0.000	0.000	0.000	0.000	0.000
Other	2012	2012	25	$18,000	TBD				Energy Saving ECM	124.000	0.000	0.000	0.000	0.000	0.000	0.000
Other	2012	2013	25	$9,000	TBD				Energy Saving ECM	11.523	0.000	0.000	0.000	0.000	0.000	0.000
Other	2012	2015	25	$3,156,000					Energy Saving ECM	12,795.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2012	2013	25	$2,660,000	TBD				Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	160.307	0.000

					Cost Savings				Notes				
(ae)	(af)	(ag)	(ah)	(ai)	(aj)	(ak)	(al)	(am)	(an)	(ao)	(ap)	(aq)	
ure enter "0". If "Other", what is "Other"?	Estimated Annual Potable Water Savings (10^3 Gal/Yr)	Estimated Annual ILA (Non-Potable Freshwater) Savings (10^3 Gal/Yr)	Estimated Annual Renewable Electricity Output (MWh/Yr)	Estimated Annual Renewable Thermal Output (10^9 BTU/Yr)	Estimated Annual Energy Cost Savings ($/Yr)	Estimated Annual Water Cost Savings ($/Yr)	Estimated Annual Cost Savings ($/Yr) from switching to a renewable energy source	Estimated Annual Ancillary Cost Savings ($/Yr)	Site Priority	Additional Information	Bldg # (Optional)	SPO Comments/Notes	Savings to Investment Ratio (SIR)
	0.000	0.000	0.000	0.000	$0	$0		$0		Project Complete			
	0.000	0.000	0.000	0.000	$494,298	$0		$0		Project Complete			N/A
	59,136,914.000	0.000	0.000	0.000	$405,056	$83,726		$4,053		Project Complete			N/A
	0.000	0.000	0.000	0.000	$494,168	$0		$0		Project Complete			N/A
	10,658,721.000	0.000	0.000	0.000	$19,539	$47,386		$780,257		Project Complete			N/A
	0.000	0.000	0.000	0.000	$8,456,995	$0		$0		Project Complete			
	23,994.000	0.000	0.000	0.000	$0	$20,155		$0		Project Complete			
	0.000	0.000	8,072.195	0.000	$322,887	$0	$322,887	$0		Awaiting ESPC DO#3 for additional project information			0.09
	0.000	0.000	0.000	0.000	$52,573	$0		$46,864					0.73
	0.000	0.000	0.000	0.000	$0	$0		$0		Project Complete			N/A
	0.000	0.000	0.000	0.000	$283,882	$0		$0		Awaiting ESPC DO#3 for additional project information			1.54
	0.000	0.000	0.000	0.000	$81,077	$0		$0		Project Complete			6.29
	0.000	0.000	0.000	0.000	$86,000	$0		$0		Project Complete			1.13
	0.000	0.000	0.000	0.000	$361,414	$0		$0		Revised to Identified, based on recent discussions for future need			0.63
	15.813	0.000	0.000	0.000	$0	$22,394		$0		Reconciled with FY2012 meter plan			0
	0.125	0.000	0.000	0.000	$0	$177		$0		Metering planned for future year			0
	0.000	0.000	0.000	0.000	$0	$0		$0		Metering planned for future year			N/A
		0.000	0.000	0.000	$296			$0					0.01
	0.000	0.000	0.000	0.000	$621	$0		$0					5.21
	0.000	0.000	0.000	0.000	$8,062	$0		$0		Project too costly for implementation at this time			6.96
	0.000	0.000	0.000	0.000	$749	$0		$0					1.28
	0.000	0.000	0.000	0.000	$828,410	$0		$0		EMIP project completed FY2012			3.77
	0.000	0.000	0.000	0.000	$157,567	$0		$0		Project too costly for implementation at this time			4.41

PSO	Site #	Site	HQ Measure #	If Covered, EISA S432 Reporting Year (YYYY)	Has this measure been included in an official DOE budget requests? If yes, provide Project/Measure #	Site Project #	Conservation Measure(s) Status	Conservation Measure(s) Type	Conservation Measure(s) Name or Description	Measure(s) Location (Zip Code)	Is this a multiple or single facility ECM?	Does the measure contribute to the reduction of deferred maintenance?	Is this effort/measure beyond typical O&M improvement to meet a goal?
NNSA	146	Y12	NNSA-0146-0033	2009		UMP STM-004	Operational	Standard Metering Systems	Steam Meter Installation 9201-03	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0034	2009		Y12-E-TC5-01	Awarded/Approved	Lighting Improvements	Energy-Efficient Lighting Upgrade -Various	37831	Multiple	Yes	No
NNSA	146	Y12	NNSA-0146-0035	2009		12	Identified	Energy/Utility Distribution Systems	Compressed Air/Power Distribution	37831		No	No
NNSA	146	Y12	NNSA-0146-0036	2009			Operational	Appliance/Plug-load reductions	Water heater/PC power managermnt/Mech System Improvements	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0037	2009		Y12-E-TC40-01	Cancelled	Audit/Evaluation (Energy, Water)	ESCO support/EISA audits/ JCC LEED	37831	Multiple	No	Yes
NNSA	146	Y12	NNSA-0146-0038	2009			Operational	Other	Capping of Coal Pile - Design	37831		No	No
NNSA	146	Y12	NNSA-0146-0039	Not Covered		BOP A1 20	Cancelled	Energy Related Process Improvements	9113 Occupancy sensors	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0040	Not Covered		BOP A1 22	Identified	Energy Related Process Improvements	9115 Occupancy sensors	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0041	Not Covered		BOP A1 23	Identified	Energy Related Process Improvements	9116 Occupancy sensors	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0042	Not Covered		BOP A1 25	Cancelled	Energy Related Process Improvements	9119 Occupancy sensors	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0043	Not Covered		BOP A1 30	Identified	Energy Related Process Improvements	9733-05 Occupancy sensors	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0044	Not Covered		FIS 3	Cancelled	Heating, Ventilating, and Air Conditioning (HVAC)	9113 HVAC Replacements	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0045	2010		BOP A1 15	Operational	Heating, Ventilating, and Air Conditioning (HVAC)	9737 HVAC - Install Variable Speed Drives on fans	37831		Yes	No
NNSA	146	Y12	NNSA-0146-0046	Not Covered			Operational	Energy Related Process Improvements	Install New Cool Roof - 9119	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0047	2010			Operational	Energy Related Process Improvements	Capping of Coal Pile - Implementation Phase	37831		No	No
NNSA	146	Y12	NNSA-0146-0048	Not Covered		BOP A1 13	Identified	Water and Sewer Conservation Systems	9723-27 Plumbing upgrades (D20)	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0049	Not Covered		BOP A1 13	Identified	Water and Sewer Conservation Systems	9723-31 Plumbing upgrades (D20)	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0051	Not Covered		BOP A1 13	Identified	Water and Sewer Conservation Systems	9723-28 Plumbing upgrades (D20)	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0052	Not Covered		BOP A1 13	Identified	Water and Sewer Conservation Systems	9723-33 Plumbing upgrades (D20)	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0053	Not Covered		FIS 8	Operational	Chilled Water/Hot Water/Steam Distribution Systems	9723-34 water heater replacement	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0054	Not Covered		BOP A1 17-30	Identified	Building Automation Systems/EMCS	Lighting occupancy sensors various buildings	37831	Multiple	No	No
NNSA	146	Y12	NNSA-0146-0055	2010		FIS 3/10/11	Identified	Heating, Ventilating, and Air Conditioning (HVAC)	Upgrade HVAC; restore UMS Connection; Various Bldgs	37831	Multiple	Yes	No
NNSA	146	Y12	NNSA-0146-0056	Not Covered			Identified	Building Envelope Modifications	Cool roof & window installations	37831	Multiple	Yes	No
NNSA	146	Y12	NNSA-0146-0057	2010		16.1	Operational	Water and Sewer Conservation Systems	Demineralized Water Production Facility Replacement - Ph 1	37831		Yes	No
NNSA	146	Y12	NNSA-0146-0058	2012			Operational	Energy Related Process Improvements	Jack Case HPSB initiatives	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0059	Not Covered			Operational	Energy Related Process Improvements	Facility Consolidation	37831		Yes	No
NNSA	146	Y12	NNSA-0146-0060	Not Covered			Verified	Energy Related Process Improvements	9113 HPSB Initiatives	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0061	Not Covered			Verified	Energy Related Process Improvements	9119 HPSB Initiatives	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0062	2012			Awarded/Approved	Lighting Improvements	Lighting replacements	37831	Multiple	Yes	No
NNSA	146	Y12	NNSA-0146-0063	Not Covered			Awarded/Approved	Lighting Improvements	Occupant Sensors for HPSB facilities	37831	Multiple	No	Yes
NNSA	146	Y12	NNSA-0146-0064	Not Covered			Identified	Other	Electric Vehicle Charging Stations	37831		No	Yes
NNSA	146	Y12	NNSA-0146-0065	Not Covered			Identified	Other	Facility Demolitions	37831	Multiple	Yes	No

Funding Source/Type (Actual or Potential)	Starting Year of Measure Implementation (Anticipated or Actual - YYYY)	Completion/ Operational Year of Measure (Anticipated or Actual --	Estimated Service Life	Estimated Implementation Cost ($)	Are there plans to measure and verify the performance of this	If M&V has been			Is this a energy saving measure or renewable energy system?	Provide estimated energy saved or switched for each energy type, as applicable. If there are no savings associated with the meas						
						Type of M&V	MM	YYYY		Estimated Annual Electricity Saved (MWh/Yr)	Estimated Annual Fuel Oil Saved (10^3 Gal/Yr)	Estimated Annual Natural Gas Saved (10^3 Cf/Yr)	Estimated Annual LPG/Propane Saved (10^3 Gal/Yr)	Estimated Annual Coal Saved (Short Ton/Yr)	Estimated Annual Steam Saved (10^9 BTU/Yr)	Estimated Annual Other Saved (10^9 BTU/Yr)
M&R Indirect	2012	2012	25	$25,000					Energy Saving ECM	105.738	0.000	7.162	0.000	0.000	0.000	0.000
ESPC	2014	2016	10	$5,358,382	TBD				Energy Saving ECM	8,215.362	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2011	2012	25	$2,093,667	TBD				Energy Saving ECM	9,143.409	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2012	2015	25	$3,381,983					Energy Saving ECM	2,329.939	0.000	8,496.000	0.000	0.000	0.000	0.000
M&R Indirect	2011	2012	25	$1,000,000					Energy Saving ECM	977.100	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2011	2011	25	$200,000					Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2012	2015	10	$36,000					Energy Saving ECM	444.900	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2012	2015	10	$59,220	TBD				Energy Saving ECM	9.934	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2012	2015	10	$54,285	TBD				Energy Saving ECM	35.678	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2012	2015	10	$51,000					Energy Saving ECM	550.410	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2012	2015	10	$44,415	TBD				Energy Saving ECM	6.717	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2013	2013	25	$372,000					Energy Saving ECM	61.286	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2011	2011	25	$372,000					Energy Saving ECM	100.000	0.000	0.000	0.000	0.000	0.000	0.000
Disposition	2011	2012	25	$39,258					Energy Saving ECM	15.899	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2012	2012	25						Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2011	2015	25	$85,633	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2011	2015	25	$229,458	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2011	2015	25	$56,666	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2011	2015	25	$83,284	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2011	2011	15	$60,000					Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2012	2015	10	$5,390,689	TBD				Energy Saving ECM	14,425.850	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2011	2016	25	$1,540,000	TBD				Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2011	2015	10	$1,488,000	TBD				Energy Saving ECM	70.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2011	2011	25	$6,999,660					Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2012	2012	25	$300,000					Energy Saving ECM	900.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2012	2015	25	$500,000					Energy Saving ECM	1,000.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2012	2012	25	$691,774	TBD				Energy Saving ECM	217.230	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2012	2012	25	$893,132	TBD				Energy Saving ECM	450.460	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	25	$10,669,000	TBD				Energy Saving ECM	7,330.560	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	25	$100,000	TBD				Energy Saving ECM	145,000.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2014	2016	25	$25,000	TBD				Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Disposition	2012	2012	25	$13,500,000	TBD				Energy Saving ECM	143.302	0.000	0.000	0.000	0.000	0.000	0.000

ure enter "0". If "Other", what is "Other"?	Estimated Annual Potable Water Savings (10^3 Gal/Yr)	Estimated Annual ILA (Non-Potable Freshwater) Savings (10^3 Gal/Yr)	Estimated Annual Renewable Electricity Output (MWh/Yr)	Estimated Annual Renewable Thermal Output (10^9 BTU/Yr)	Estimated Annual Energy Cost Savings ($/Yr)	Estimated Annual Water Cost Savings ($/Yr)	Estimated Annual Cost Savings ($/Yr) from switching to a renewable energy source	Estimated Annual Ancillary Cost Savings ($/Yr)	Site Priority	Additional Information	Bldg # (Optional)	SPO Comments/Notes		Savings to Investment Ratio (SIR)
	0.000	0.000	0.000	0.000	$4,100	$0		$0		Balance of Plant Plan				0.72
	0.000	0.000	0.000	0.000	$460,178	$0		$46,864		ESPC DO#3				1.78
	0.000	0.000	0.000	0.000	$501,299	$0		$0		Infrared scanning of power distribution lines to detect temperature differences from loose connections				N/A
	0.000	0.000	0.000	0.000	$142,761	$0		$0		Previous ECM 4.1 JCI Initial Proposal				9.86
	0.000	0.000	0.000	0.000	$103,047	$0		$0		Project Cancelled				9.63
	0.000	0.000	0.000	0.000	$1	$0		$0		Project Complete				5.37
	0.000	0.000	0.000	0.000	$17,047	$0		$0		Included in NNSA-146-0060				10.19
	0.000	0.000	0.000	0.000	$562	$0		$0		Balance of Plant Plan				3.37
	0.000	0.000	0.000	0.000	$2,017	$0		$0		Balance of Plant Plan				N/A
	0.000	0.000	0.000	0.000	$21,090	$0		$0		Included in NNSA-146-0061				N/A
	0.000	0.000	0.000	0.000	$380	$0		$0		Balance of Plant Plan				N/A
	0.000	0.000	0.000	0.000	$3,688	$0		$0		Included in NNSA-146-0060				0.16
	0.000	0.000	0.000	0.000	$5,000	$0		$0		Project Complete				N/A
	0.000	0.000	0.000	0.000	$953	$0		$0						N/A
	0.000	0.000	0.000	0.000	$0	$0		$0		Project Complete				N/A
	1,958.950	0.000	0.000	0.000	$0	$2,527		$19,375		Sewer Savings				11.06
	3,225.520	0.000	0.000	0.000	$0	$4,161		$31,900		Sewer Savings				4.14
	1,030.140	0.000	0.000	0.000	$0	$1,329		$10,188		Sewer Savings				15.92
	1,199.010	0.000	0.000	0.000	$0	$1,550		$13,405		Sewer Savings				12.75
	0.000	0.000	0.000	0.000	TBD	$0		$0		Project Complete				N/A
	0.000	0.000	0.000	0.000	$470,008	$0		$0		Balance of Plant Plan				2.53
	TBD	0.000	0.000	0.000	TBD	TBD		TBD		The HVAC system components need replacment to restore design operating capability. Upgrades will allow the systems to operate more efficiently, and will restore setback capability.				N/A
	0.000	0.000	0.000	0.000	TBD	$0		$0						0.05
	40,525.000	0.000	0.000	0.000	$3	$41,976		$0		Project Complete				N/A
	0.000	0.000	0.000	0.000	$100,000	$0		$0						N/A
	TBD	0.000	0.000	0.000	$50,000	TBD		$0						N/A
Sewer	851.800	0.000	0.000	0.000	$12,281	$1,099		$8,424						0.54
Sewer	1,346.900	0.000	0.000	0.000	$25,466	$1,738		$13,322						0.79
	0.000	0.000	0.000	0.000	$439,834	$0		$0		ESPC DO#3				0.62
	0.000	0.000	0.000	0.000	$15,000	$0		$0		ESPC DO#3				1.42
	0.000	0.000	0.000	0.000	$0	$0		$0		No energy savings is associated with electric vehicle charging stations.				N/A
	1,000.000	0.000	0.000	0.000	$9,315	$1,416		$0						0.01

PSO	Site #	Site	HQ Measure #	If Covered, EISA S432 Reporting Year (YYYY)	Has this measure been included in an official DOE budget requests? If yes, provide Project/Measure #	Site Project #	Conservation Measure(s) Status	Conservation Measure(s) Type	Conservation Measure(s) Name or Description	Measure(s) Location (Zip Code)	Is this a multiple or single facility ECM?	Does the measure contribute to the reduction of deferred maintenance?	Is this effort/measure beyond typical O&M improvement to meet a goal?
NNSA	146	Y12	NNSA-0146-0066	Not Covered			Identified	Water and Sewer Conservation Systems	Potable water upgrades for HPSB facilities	37831	Multiple	Yes	Yes
NNSA	146	Y12	NNSA-0146-0067	2012			Identified	Advanced Metering Systems	Advanced Natural Gas Meters	37831	Multiple	No	Yes
NNSA	146	Y12	NNSA-0146-0068	2012			Identified	Advanced Metering Systems	Advanced Chilled Water Meters	37831	Multiple	No	Yes
NNSA	146	Y12	NNSA-0146-0069	2012			Cancelled	Water and Sewer Conservation Systems	Change JCC Irrigation to Raw Water Feed	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0070	2012		PD-40,42,43, 44,45	Identified	Heating, Ventilating, and Air Conditioning (HVAC)	9212 HVAC refurbishments	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0071	2012		PD-134,168	Identified	Heating, Ventilating, and Air Conditioning (HVAC)	9215 HVAC/Steam refurbishment	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0072	2012		PD-172,174,177, 178,179,180,192,199	Awarded/Approved	Heating, Ventilating, and Air Conditioning (HVAC)	9201-05N/W HVAC replacments	37831		Yes	No
NNSA	146	Y12	NNSA-0146-0073	2012		PD-230,231	Identified	Heating, Ventilating, and Air Conditioning (HVAC)	9204-02E Fan refurbishment	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0074	2012		PD-36,37	Identified	Energy Related Process Improvements	9212 Electrical upgrades	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0075	Not Covered			Identified	Photovoltaic	Solar Parking Structure	37831	Multiple	No	Yes
NNSA	146	Y12	NNSA-0146-0076	Not Covered			Identified	Wind	Vertical Axis Wind Turbine	37831	Multiple	No	Yes
NNSA	146	Y12	NNSA-0146-0077	2012			Identified	Steam Plant Improvements	Steam Station Generator	37831	Multiple	No	Yes
NNSA	146	Y12	NNSA-0146-0078	2012			Identified	Chiller Plant Improvements	9767-10 Chiller life-cycle replacement	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0079	2012			Identified	Chiller Plant Improvements	9767-08 Chiller life-cycle replacement	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0080	2012			Identified	Chiller Plant Improvements	9767-13 Chiller life-cycle replacement	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0081	Not Covered			Operational	Building Envelope Modifications	9103 Cool Roof Installation	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0082	Not Covered			Verified	Building Envelope Modifications	9103 Thermal Window Replacement	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0083	Not Covered			Verified	Building Envelope Modifications	9103 Plumbing fixture replacement	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0084	Not Covered			Verified	Building Envelope Modifications	9103 T-12 Fixture Replacement	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0085	Not Covered			Verified	Building Envelope Modifications	9103 Occupancy Sensor Installation	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0086	2012			Identified	Building Envelope Modifications	9201-03 Cool Roof Installation	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0087	2012			Identified	Building Envelope Modifications	9201-03 Thermal Window Replacement	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0088	2012			Awarded/Approved	Building Envelope Modifications	9201-03 Air Handler Replacements	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0089	2012			Identified	Building Envelope Modifications	9201-03 Plumbing Fixture Replacements	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0090	2012			Awarded/Approved	Lighting Improvements	9201-03 Lighting Fixture Replacement	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0091	2012			Awarded/Approved	Lighting Improvements	9201-03 Lighting control (occupant Sensor)	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0092	2012			Awarded/Approved	Lighting Improvements	9215 Lighting Fixture Replacement	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0093	2012			Awarded/Approved	Lighting Improvements	9215 Lighting control (occupant Sensor)	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0094	2012			Awarded/Approved	Lighting Improvements	9998 Lighting Fixture Replacement	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0095	2012			Awarded/Approved	Lighting Improvements	9998 Lighting control (occupant Sensor)	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0096	2012			Awarded/Approved	Lighting Improvements	9995 Lighting Fixture Replacement	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0097	2012			Awarded/Approved	Lighting Improvements	9995 Lighting control (occupant Sensor)	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0098	2012			Identified	Building Envelope Modifications	9201-01 Thermal window replacement	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0099	2012			Awarded/Approved	Lighting Improvements	9201-01 Lighting replacements	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0100	2012			Identified	Building Envelope Modifications	9201-01 Air Filter Replacements	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0101	2012			Identified	Building Envelope Modifications	9201-01 vacuum pump controls	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0102	2012			Awarded/Approved	Lighting Improvements	9201-05N Lighting Replacements	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0103	2012			Identified	Building Envelope Modifications	9201-05N vacuum pump controls	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0104	2012			Awarded/Approved	Lighting Improvements	9201-05W Lighting Replacements	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0105	2012			Identified	Building Envelope Modifications	9201-05W vacuum pump controls	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0106	2012			Identified	Building Envelope Modifications	9201-05W Electric Motor Replacement	37831	Single	Yes	No

Funding Source/Type (Actual or Potential)	Starting Year of Measure Implementation (Anticipated or Actual - YYYY)	Completion/ Operational Year of Measure (Anticipated or Actual --	Estimated Service Life	Estimated Implementation Cost ($)	Are there plans to measure and verify the performance of this	If M&V has been			Is this a energy saving measure or renewable energy system?	Provide estimated energy saved or switched for each energy type, as applicable. If there are no savings associated with the meas						
						Type of M&V	MM	YYYY		Estimated Annual Electricity Saved (MWh/Yr)	Estimated Annual Fuel Oil Saved (10^3 Gal/Yr)	Estimated Annual Natural Gas Saved (10^3 Cf/Yr)	Estimated Annual LPG/Propane Saved (10^3 Gal/Yr)	Estimated Annual Coal Saved (Short Ton/Yr)	Estimated Annual Steam Saved (10^9 BTU/Yr)	Estimated Annual Other Saved (10^9 BTU/Yr)
M&R Indirect	2012	2015	25	$2,000,000	TBD				Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TBD	2011	2015	25	$36,000	TBD				Energy Saving ECM	0.000	0.000	24,080.000	0.000	0.000	0.000	0.000
TBD	2014	2015	25	$250,000	TBD				Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Other			25	$250,000					Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown		2013	25	$650,000	TBD				Energy Saving ECM	200.000	0.000	0.000	0.000	0.000	0.544	0.544
Unknown		2013	25	$450,000	TBD				Energy Saving ECM	TBD	0.000	TBD	0.000	0.000	TBD	TBD
Unknown		2013	25	$2,580,000	TBD				Energy Saving ECM	TBD	0.000	0.000	0.000	0.000	TBD	TBD
Unknown		2013	25	$120,000	TBD				Energy Saving ECM	TBD	0.000	0.000	0.000	0.000	0.000	0.000
Unknown		2013	25	$580,000	TBD				Energy Saving ECM	TBD	0.000	0.000	0.000	0.000	0.000	0.000
Unknown		2014	25	$1,000,000	TBD				Fuel Switching RE	1.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown		2012	25	$250,000	TBD				Fuel Switching RE	0.100	0.000	0.000	0.000	0.000	0.000	0.000
Unknown		2015	25	$250,000	TBD				Fuel Switching RE	0.100	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2016	2018	25	$14,000,000	TBD				Energy Saving ECM	7,153.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2016	2018	25	$4,600,000	TBD				Energy Saving ECM	1,820.000	0.000	0.000	0.000	0.000	0.000	0.000
Unknown	2016	2018	25	$9,200,000	TBD				Energy Saving ECM	4,600.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2012	2012	25	$282,775					Energy Saving ECM	20.925	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2015	2015	40	$198,000	TBD				Energy Saving ECM	83.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2015	2015	35	$183,000	TBD				Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2015	2015	20	$1,107,653	TBD				Energy Saving ECM	330.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2015	2015	20	$176,250	TBD				Energy Saving ECM	54.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2015	2015	25	$507,892	TBD				Energy Saving ECM	92.468	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	40	$134,304	TBD				Energy Saving ECM	25.356	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	20	$1,033,769	TBD				Energy Saving ECM	327.575	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	35	$121,079	TBD				Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$816,786	TBD				Energy Saving ECM	983.308	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$139,650	TBD				Energy Saving ECM	555.013	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$1,559,502	TBD				Energy Saving ECM	523.308	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$141,000	TBD				Energy Saving ECM	125.529	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$1,953,615	TBD				Energy Saving ECM	472.757	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$105,750	TBD				Energy Saving ECM	301.797	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$1,316,660	TBD				Energy Saving ECM	269.998	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$141,000	TBD				Energy Saving ECM	103.267	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	40	$2,791,480	TBD				Energy Saving ECM	472.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$599,983	TBD				Energy Saving ECM	205.463	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	1	$1,500	TBD				Energy Saving ECM	113.800	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	20	$4,000	TBD				Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$1,246,393	TBD				Energy Saving ECM	464.293	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	20	$100,000	TBD				Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$878,486	TBD				Energy Saving ECM	171.575	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	20	$100,000	TBD				Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	25	$6,679	TBD				Energy Saving ECM	9.110	0.000	0.000	0.000	0.000	0.000	0.000

ure enter "0". If "Other", what is "Other"?	Estimated Annual Potable Water Savings (10^3 Gal/Yr)	Estimated Annual ILA (Non-Potable Freshwater) Savings (10^3 Gal/Yr)	Estimated Annual Renewable Electricity Output (MWh/Yr)	Estimated Annual Renewable Thermal Output (10^9 BTU/Yr)	Estimated Annual Energy Cost Savings ($/Yr)	Estimated Annual Water Cost Savings ($/Yr)	Estimated Annual Cost Savings ($/Yr) from switching to a renewable energy source	Estimated Annual Ancillary Cost Savings ($/Yr)	Site Priority	Additional Information	Bldg # (Optional)	SPO Comments/Notes		Savings to Investment Ratio (SIR)
	TBD	0.000	0.000	0.000	TBD	TBD		$0						N/A
	0.000	0.000	0.000	0.000	$138,995	$0		$0						N/A
	0.000	0.000	0.000	0.000	TBD	$0		$0						N/A
	0.000	TBD	0.000	0.000	$0	TBD		$0		Project determined not feasible				N/A
	0.000	0.000	0.000	0.000	$30,000	$0		$0						0.8
	0.000	0.000	0.000	0.000	TBD	$0		$0						N/A
Chilled Water - Electric Driven Chiller	0.000	0.000	0.000	0.000	TBD	$0		TBD		2 units completed in 2012				N/A
	0.000	0.000	0.000	0.000	TBD	$0		$0						N/A
	0.000	0.000	0.000	0.000	TBD	$0		$0						N/A
	0.000	0.000	0.000	0.000	$60	$0		$0						N/A
	0.000	0.000	0.000	0.000	$6	$0		$0						N/A
	0.000	0.000	0.000	0.000	$6	$0		$0						N/A
	0.000	0.000	0.000	0.000	$429,192	$0	$0	$0						0.55
	0.000	0.000	0.000	0.000	$109,200	$0	$0	$0						0.43
	0.000	0.000	0.000	0.000	$196,600	$0	$0	$0						0.54
0	0.000	0.000	0.000	0.000	$1,183	$0	$0	$0						0.07
0	0.000	0.000	0.000	0.000	$4,700	$0	$0	$0						0.43
0	0.000	0.000	0.000	0.000	$1,183	$0	$0	$0						0.07
0	0.000	0.000	0.000	0.000	$4,700	$0	$0	$0						0.43
Sewer	905.000	0.000	0.000	0.000	$0	$1,167	$0	$8,950						1.69
0	0.000	0.000	0.000	0.000	$20,000	$0	$0	$0						0.3
0	0.000	0.000	0.000	0.000	$3,100	$0	$0	$0						0.31
0	0.000	0.000	0.000	0.000	$11,676	$0	$0	$0						0.19
0	0.000	0.000	0.000	0.000	$1,331	$0	$0	$0						0.2
0	43,938.000	0.000	0.000	0.000	$18,519	$57,998	$0	$0		2 Units replaced in 2012				8.54
	1,565.000	0.000	0.000	0.000	$0	$2,019	$0	$15,480		Sewer savings				2.5
0	0.000	0.000	0.000	0.000	$55,589	$0	$0	$0		ESPC DO#3				1.25
0	0.000	0.000	0.000	0.000	$31,376	$0	$0	$0		ESPC DO#3				4.12
0	0.000	0.000	0.000	0.000	$29,584	$0	$0	$0		ESPC DO#3				0.36
0	0.000	0.000	0.000	0.000	$7,097	$0	$0	$0		ESPC DO#3				0.92
0	0.000	0.000	0.000	0.000	$26,726	$0	$0	$0		ESPC DO#3				0.25
0	0.000	0.000	0.000	0.000	$17,062	$0	$0	$0		ESPC DO#3				2.93
0	0.000	0.000	0.000	0.000	$15,264	$0	$0	$0		ESPC DO#3				0.21
0	0.000	0.000	0.000	0.000	$5,835	$0	$0	$0		ESPC DO#3				0.76
0	0.000	0.000	0.000	0.000	$28,368	$0	$0	$0						0.17
0	0.000	0.000	0.000	0.000	$11,615	$0	$0	$0		ESPC DO#3				0.36
0	0.000	0.000	0.000	0.000	$6,430	$0	$0	$0						4.71
0	3,714.000	0.000	0.000	0.000	$0	$4,791	$0	$0		Cooling water continously running, needs control				20.71
0	0.000	0.000	0.000	0.000	$26,248	$0	$0	$0		ESPC DO#3				0.39
0	12,264.000	0.000	0.000	0.000	$0	$15,821	$0	$0						2.73
0	0.000	0.000	0.000	0.000	$9,700	$0	$0			ESPC DO#3				0.2
0	12,264.000	0.000	0.000	0.000	$0	$15,821	$0							2.73
0	0.000	0.000	0.000	0.000	$515	$0	$0							1.42

PSO	Site #	Site	HQ Measure #	If Covered, EISA S432 Reporting Year (YYYY)	Has this measure been included in an official DOE budget requests? If yes, provide Project/Measure #	Site Project #	Conservation Measure(s) Status	Conservation Measure(s) Type	Conservation Measure(s) Name or Description	Measure(s) Location (Zip Code)	Is this a multiple or single facility ECM?	Does the measure contribute to the reduction of deferred maintenance?	Is this effort/measure beyond typical O&M improvement to meet a goal?
NNSA	146	Y12	NNSA-0146-0107	2012			Awarded/Approved	Lighting Improvements	9204-02 Lighting Replacements	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0108	2012			Identified	Building Envelope Modifications	9204-02 vacuum pump controls	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0109	2012			Awarded/Approved	Lighting Improvements	9204-02 Lighting control (occupant Sensor)	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0110	2012			Operational	Building Envelope Modifications	9204-02 Condensate Pump Replacement	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0111	2012			Awarded/Approved	Building Envelope Modifications	9212 Condensate Pump Replacement	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0112	2012			Awarded/Approved	Lighting Improvements	9212 Lighting Replacements	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0113	2012			Identified	Water and Sewer Conservation Systems	9204-02E Plumbing Fixture Replacement	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0114	2012			Awarded/Approved	Lighting Improvements	9204-02E Install Occupancy Sensors	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0115	2012			Awarded/Approved	Lighting Improvements	9204-02E Install Lighting Timer	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0116	2012			Identified	Water and Sewer Conservation Systems	9202 Plumbing Fixture Replacements	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0117	2012			Awarded/Approved	Lighting Improvements	9202 Replace Incandescent Lamps	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0118	2012			Awarded/Approved	Lighting Improvements	9202 Install Occupancy Sensors	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0119	2012			Identified	Water and Sewer Conservation Systems	9203 & 3A Plumbing Fixture Replacements	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0120	2012			Awarded/Approved	Lighting Improvements	9203 & 3A Install Occupancy Sensors	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0121	2012			Awarded/Approved	Lighting Improvements	9203 & 3A Replace Incandescent Lamps	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0122	2012			Identified	Water and Sewer Conservation Systems	9737 Plumbing Fixture Replacement	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0123	2012			Awarded/Approved	Lighting Improvements	9737 Install Occupancy Sensors	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0124	2012			Awarded/Approved	Lighting Improvements	9767-08 Replace HPS Lights with T8 Lights	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0125	2012			Identified	Lighting Improvements	9767-08 Install Occupancy Sensors	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0126	2012			Identified	Lighting Improvements	9767-11 Install Occupancy Sensors	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0127	2012			Awarded/Approved	Lighting Improvements	9767-11 Replace MH Lights with T8 Lights	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0128	Not Covered			Awarded/Approved	Lighting Improvements	9710-03 Lighting Upgrades	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0129	Not Covered			Identified	Water and Sewer Conservation Systems	9710-03 Plumbing Fixture Upgrade	37831	Single	Yes	Yes
NNSA	146	Y12	NNSA-0146-0130	Not Covered			Awarded/Approved	Lighting Improvements	9114 Lighting Improvements	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0131	Not Covered			Identified	Water and Sewer Conservation Systems	9114 Plumbing Fixture Upgrade	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0132	Not Covered			Identified	Building Envelope Modifications	9114 Window Replacement	37831	Single	Yes	No
NNSA	146	Y12	NNSA-0146-0133	Not Covered			Awarded/Approved	Lighting Improvements	9115 Lighting Improvements	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0134	Not Covered			Identified	Water and Sewer Conservation Systems	9115 Plumbing Fixture Upgrade	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0135	Not Covered			Awarded/Approved	Lighting Improvements	9116 Lighting Improvements	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0136	Not Covered			Identified	Water and Sewer Conservation Systems	9116 Plumbing Fixture Upgrade	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0137	Not Covered			Identified	Appliance/Plug-load reductions	9113 Plug-load Reductions	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0138	Not Covered			Identified	Appliance/Plug-load reductions	9119 Plug-load Reductions	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0139	Not Covered			Identified	Appliance/Plug-load reductions	9103 Plug-load Reduction	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0140	2013			Awarded/Approved	Lighting Improvements	9723-31 Replace T12 Fixtures with T8 Fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0141	2013			Awarded/Approved	Lighting Improvements	9723-31 Replace T12 Fixtures with T8 Fixtures	37831	Single	No	Yes

Funding Source/Type (Actual or Potential)	Starting Year of Measure Implementation (Anticipated or Actual - YYYY)	Completion/ Operational Year of Measure (Anticipated or Actual --	Estimated Service Life	Estimated Implementation Cost ($)	Are there plans to measure and verify the performance of this	If M&V has been			Is this a energy saving measure or renewable energy system?	Provide estimated energy saved or switched for each energy type, as applicable. If there are no savings associated with the meas						
						Type of M&V	MM	YYYY		Estimated Annual Electricity Saved (MWh/Yr)	Estimated Annual Fuel Oil Saved (10^3 Gal/Yr)	Estimated Annual Natural Gas Saved (10^3 Cf/Yr)	Estimated Annual LPG/Propane Saved (10^3 Gal/Yr)	Estimated Annual Coal Saved (Short Ton/Yr)	Estimated Annual Steam Saved (10^9 BTU/Yr)	Estimated Annual Other Saved (10^9 BTU/Yr)
ESPC	2014	2016	20	$2,016,086	TBD				Energy Saving ECM	562.100	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	20	$600,000	TBD				Energy Saving ECM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$141,000	TBD				Energy Saving ECM	349.388	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	20	$600,000					Energy Saving ECM	0.000	0.000	8,148.140	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	20	$600,000	TBD				Energy Saving ECM	0.000	0.000	13,475.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$3,678,078	TBD				Energy Saving ECM	899.580	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	35	$97,342	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$75,435	TBD				Energy Saving ECM	65.444	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$20,065	TBD				Energy Saving ECM	87.239	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	35	$102,494	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	5	$2,100	TBD				Energy Saving ECM	42.916	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$122,550	TBD				Energy Saving ECM	211.094	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	35	$32,450	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$54,150	TBD				Energy Saving ECM	88.730	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	5	$714	TBD				Energy Saving ECM	16.150	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	35	$113,070	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$88,350	TBD				Energy Saving ECM	137.668	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$13,842	TBD				Energy Saving ECM	32.167	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	20	$1,140	TBD				Energy Saving ECM	6.181	0.000	0.000	0.000	0.000	0.000	0.000
M&R Indirect	2016	2016	20	$2,280	TBD				Energy Saving ECM	9.841	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$15,054	TBD				Energy Saving ECM	18.057	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$440,027	TBD				Energy Saving ECM	448.900	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2016	2016	35	$76,603	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$741,390	TBD				Energy Saving ECM	390.360	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2016	2016	35	$45,639	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2016	2016	35	$58,581	TBD				Energy Saving ECM							
ESPC	2014	2016	20	$217,917	TBD				Energy Saving ECM	89.891	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2016	2016	35	$41,892	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$210,999	TBD				Energy Saving ECM	94.179	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2016	2016	35	$41,892	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2016	2016	35	$15,543	TBD				Energy Saving ECM	83.214	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2016	2016	35	$24,849	TBD				Energy Saving ECM	67.245	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2016	2016	35	$13,464	TBD				Energy Saving ECM	83.347	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2015	2016	20	$146,431	TBD				Energy Saving ECM	349.331	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$161,420	TBD				Energy Saving ECM	39.245	0.000	0.000	0.000	0.000	0.000	0.000

ure enter "0". If "Other", what is "Other"?	Estimated Annual Potable Water Savings (10^3 Gal/Yr)	Estimated Annual ILA (Non-Potable Freshwater) Savings (10^3 Gal/Yr)	Estimated Annual Renewable Electricity Output (MWh/Yr)	Estimated Annual Renewable Thermal Output (10^9 BTU/Yr)	Estimated Annual Energy Cost Savings ($/Yr)	Estimated Annual Water Cost Savings ($/Yr)	Estimated Annual Cost Savings ($/Yr) from switching to a renewable energy source	Estimated Annual Ancillary Cost Savings ($/Yr)	Site Priority	Additional Information	Bldg # (Optional)	SPO Comments/Notes		Savings to Investment Ratio (SIR)
0	0.000	0.000	0.000	0.000	$31,777	$0	$0			ESPC DO#3				0.29
0	8,914.180	0.000	0.000	0.000	$0	$11,499	$0							0.33
0	0.000	0.000	0.000	0.000	$19,752	$0	$0			ESPC DO#3				2.57
	13,523.380	0.000	0.000	0.000	$36,422	$17,445		$3,566						N/A
	22,365.590	0.000	0.000	0.000	$60,237	$28,852		$3,566						1.95
0	0.000	0.000	0.000	0.000	$50,856	$0	$0			ESPC DO#3				0.25
0	841.154	0.000	0.000	0.000	$0	$1,085	$0	$8,319		Sewer savings				1.84
0	0.000	0.000	0.000	0.000	$3,700	$0	$0	$0		ESPC DO#3				0.67
0	0.000	0.000	0.000	0.000	$4,932	$0	$0	$0		ESPC DO#3				3.99
0	479.138	0.000	0.000	0.000	$0	$618	$0	$4,739		Sewer savings				1
0	0.000	0.000	0.000	0.000	$2,426	$0	$0	$0		ESPC DO#3				15.91
0	0.000	0.000	0.000	0.000	$11,934	$0	$0	$0		ESPC DO#3				1.34
0	186.332	0.000	0.000	0.000	$0	$240	$0	$1,843		Sewer savings				0.85
0	0.000	0.000	0.000	0.000	$5,016	$0	$0	$0		ESPC DO#3				1.28
0	0.000	0.000	0.000	0.000	$913	$0	$0	$0		ESPC DO#3				0.38
0	841.154	0.000	0.000	0.000	$0	$1,085	$0	$8,319		Sewer savings				1.59
0	0.000	0.000	0.000	0.000	$0	$0	$0	$0		ESPC DO#3				1.21
0	0.000	0.000	0.000	0.000	$1,819	$0	$0	$0		ESPC DO#3				1.81
0	0.000	0.000	0.000	0.000	$349	$0	$0	$0		Occupancy sensors not specified for this facility in DO#3				4.22
0	0.000	0.000	0.000	0.000	$556	$0	$0	$0		Occupancy sensors not specified for this facility in DO#3				3.36
0	0.000	0.000	0.000	0.000	$1,021	$0	$0	$0		ESPC DO#3				0.93
0	0.000	0.000	0.000	0.000	$25,377	$0	$0	$0		ESPC DO#3				
0	2,550.016	0.000	0.000	0.000	$0	$3,290	$0	$34,425		Sewer savings				
0	0.000	0.000	0.000	0.000	$22,618	$0	$0	$0		ESPC DO#3	9114			
0	448.606	0.000	0.000	0.000	$0	$579	$0	$4,437		Sewer savings	9114			
0	0.000	0.000	0.000	0.000	$5,082	$0	$0	$0		ESPC DO#3				
0	276.836	0.000	0.000	0.000	$0	$357	$0	$3,737		Sewer savings				
0	0.000	0.000	0.000	0.000	$5,324	$0	$0	$0		ESPC DO#3				
0	170.360	0.000	0.000	0.000	$0	$220	$0	$2,300		Sewer savings				
0	0.000	0.000	0.000	0.000	$3,802	$0	$0	$0						
0	0.000	0.000	0.000	0.000	$4,704	$0	$0	$0						
0	0.000	0.000	0.000	0.000	$4,712	$0	$0	$0						
0	0.000	0.000	0.000	0.000	$19,749	$0	$0	$0		ESPC DO#3	9723-31			2.07
0	0.000	0.000	0.000	0.000	$2,219	$0	$0	$0		ESPC DO#3	9723-31			0.23

PSO	Site #	Site	HQ Measure #	If Covered, EISA S432 Reporting Year (YYYY)	Has this measure been included in an official DOE budget requests? If yes, provide Project/Measure #	Site Project #	Conservation Measure(s) Status	Conservation Measure(s) Type	Conservation Measure(s) Name or Description	Measure(s) Location (Zip Code)	Is this a multiple or single facility ECM?	Does the measure contribute to the reduction of deferred maintenance?	Is this effort/measure beyond typical O&M improvement to meet a goal?
NNSA	146	Y12	NNSA-0146-0142	2013			Awarded/Approved	Lighting Improvements	9723-31 Install Occupancy Sensors on Lighting	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0143	2013			Identified	Water and Sewer Conservation Systems	9723-31 Install efficient plumbing fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0144	2013			Identified	Roofing	9723-31 Install new Cool Roof	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0145	2013			Identified	Mechanical (i.e. direct water pumping)	9723-31 Replace steam condensate pump	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0146	2013			Awarded/Approved	Lighting Improvements	9723-34 Replace T12 Fixtures with T8 Fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0147	2013			Awarded/Approved	Lighting Improvements	9723-34 Install Occupancy Sensors on Lighting	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0148	2013			Identified	Heating, Ventilating, and Air Conditioning (HVAC)	9723-34 Replace electric HVAC with gas units	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0149	2013			Awarded/Approved	Lighting Improvements	9723-33 Replace T12 Fixtures with T8 Fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0150	2013			Awarded/Approved	Lighting Improvements	9723-33 Replace T12 Fixtures with T8 Fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0151	2013			Awarded/Approved	Lighting Improvements	9723-33 Install Occupancy Sensors on Lighting	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0152	2013			Identified	Water and Sewer Conservation Systems	9723-33 Install efficient plumbing fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0153	2013			Identified	Heating, Ventilating, and Air Conditioning (HVAC)	9723-33 Replace A/C with air to air heat pumps	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0154	2013			Awarded/Approved	Lighting Improvements	9723-28 Replace T12 Fixtures with T8 Fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0155	2013			Awarded/Approved	Lighting Improvements	9723-28 Replace T12 Fixtures with T8 Fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0156	2013			Awarded/Approved	Lighting Improvements	9723-28 Replace T12 Fixtures with T8 Fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0157	2013			Identified	Water and Sewer Conservation Systems	9723-28 Install efficient plumbing fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0158	2013			Awarded/Approved	Lighting Improvements	9723-28 Replace T12 Fixtures with T8 Fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0159	2013			Awarded/Approved	Lighting Improvements	9733-5 Replace T8 4-Lamp fixtures with T8 2-lamp Fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0160	2013			Awarded/Approved	Lighting Improvements	9733-5 Install Occupancy Sensors on Lighting	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0161	2013			Identified	Appliance/Plug-load reductions	9733-5 Install power strips with occupancy sensors for plug loads	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0162	2013			Awarded/Approved	Lighting Improvements	9114 Replace T12 Light Fixtures with LED fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0163	2013			Awarded/Approved	Lighting Improvements	9114 Replace T12 Light Fixtures with LED fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0164	2013			Awarded/Approved	Lighting Improvements	9114 Replace HPS Light fixtures with LED fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0165	2013			Identified	Water and Sewer Conservation Systems	Replace plumbing fixtures with water efficient fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0166	2013			Awarded/Approved	Lighting Improvements	9114 Install Occupancy sensors to control lighting	37831	Single	No	Yes

Funding Source/Type (Actual or Potential)	Starting Year of Measure Implementation (Anticipated or Actual - YYYY)	Completion/ Operational Year of Measure (Anticipated or Actual --	Estimated Service Life	Estimated Implementation Cost ($)	Are there plans to measure and verify the performance of this	If M&V has been			Is this a energy saving measure or renewable energy system?	Provide estimated energy saved or switched for each energy type, as applicable. If there are no savings associated with the meas						
						Type of M&V	MM	YYYY		Estimated Annual Electricity Saved (MWh/Yr)	Estimated Annual Fuel Oil Saved (10^3 Gal/Yr)	Estimated Annual Natural Gas Saved (10^3 Cf/Yr)	Estimated Annual LPG/Propane Saved (10^3 Gal/Yr)	Estimated Annual Coal Saved (Short Ton/Yr)	Estimated Annual Steam Saved (10^9 BTU/Yr)	Estimated Annual Other Saved (10^9 BTU/Yr)
ESPC	2014	2016	20	$17,625	TBD				Energy Saving ECM	88.411	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2018	2018	35	$229,458	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2018	2018	30	$546,073	TBD				Energy Saving ECM	7.034	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2016	2016	20	$71,588	TBD				Energy Saving ECM	0.000	0.000	165.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$60,102	TBD				Energy Saving ECM	67.931	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$7,050	TBD				Energy Saving ECM	9.057	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2017	2017	15	$22,671	TBD				Energy Saving ECM	0.000	0.000	84.190	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$51,885	TBD				Energy Saving ECM	123.779	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$48,426	TBD				Energy Saving ECM	11.773	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$11,400	TBD				Energy Saving ECM	22.737	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2017	2017	35	$83,284	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2017	2017	15	$125,947	TBD				Energy Saving ECM	19.286	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$16,142	TBD				Energy Saving ECM	3.924	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$72,639	TBD				Energy Saving ECM	173.290	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$26,712	TBD				Energy Saving ECM	15.137	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2017	2017	35	$56,666	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$14,100	TBD				Energy Saving ECM	24.945	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$238,671	TBD				Energy Saving ECM	32.464	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$44,415	TBD				Energy Saving ECM	6.717	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2016	2016	20	$3,732	TBD				Energy Saving ECM	17.784	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$428,916	TBD				Energy Saving ECM	234.628	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$170,289	TBD				Energy Saving ECM	54.636	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$27,975	TBD				Energy Saving ECM	0.810	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2016	2017	35	$45,639	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$114,210	TBD				Energy Saving ECM	100.287	0.000	0.000	0.000	0.000	0.000	0.000

ure enter "0". If "Other", what is "Other"?	Estimated Annual Potable Water Savings (10^3 Gal/Yr)	Estimated Annual ILA (Non-Potable Freshwater) Savings (10^3 Gal/Yr)	Estimated Annual Renewable Electricity Output (MWh/Yr)	Estimated Annual Renewable Thermal Output (10^9 BTU/Yr)	Estimated Annual Energy Cost Savings ($/Yr)	Estimated Annual Water Cost Savings ($/Yr)	Estimated Annual Cost Savings ($/Yr) from switching to a renewable energy source	Estimated Annual Ancillary Cost Savings ($/Yr)	Site Priority	Additional Information	Bldg # (Optional)	SPO Comments/Notes		Savings to Investment Ratio (SIR)
0	0.000	0.000	0.000	0.000	$4,998	$0	$0	$0		ESPC DO#3	9723-31			4.26
0	3,225.520	0.000	0.000	0.000	$0	$4,161	$0	$31,900		Sewer Savings	9723-31			3.29
0	0.000	0.000	0.000	0.000	$398	$0	$0	$0			9723-31			0.15
0	0.000	0.000	0.000	0.000	$870	$0	$0	$0			9723-31			1.15
0	0.000	0.000	0.000	0.000	$3,840	$0	$0	$0		ESPC DO#3	9723-34			0.94
0	0.000	0.000	0.000	0.000	$512	$0	$0	$0		ESPC DO#3	9723-34			1.04
0	0.000	0.000	0.000	0.000	$443	$0	$0	$0			9723-34			0.17
0	0.000	0.000	0.000	0.000	$6,998	$0	$0	$0		ESPC DO#3	9723-33			2.01
0	0.000	0.000	0.000	0.000	$666	$0	$0	$0		ESPC DO#3	9723-33			0.21
0	0.000	0.000	0.000	0.000	$1,285	$0	$0	$0		ESPC DO#3	9723-33			1.68
0	1,199.010	0.000	0.000	0.000	$0	$1,547	$0	$11,858		Sewer Savings	9723-33			3.37
0	0.000	0.000	0.000	0.000	$1,090	$0	$0	$0			9723-33			0.49
0	0.000	0.000	0.000	0.000	$222	$0	$0	$0		ESPC DO#3	9723-28			0.21
0	0.000	0.000	0.000	0.000	$9,797	$0	$0	$0		ESPC DO#3	9723-28			2.02
0	0.000	0.000	0.000	0.000	$856	$0	$0	$0		ESPC DO#3	9723-28			0.48
0	1,030.140	0.000	0.000	0.000	$0	$1,329	$0	$10,188		Sewer Savings	9723-28			2.94
0	0.000	0.000	0.000	0.000	$1,410	$0	$0	$0		ESPC DO#3	9723-28			1.5
0	0.000	0.000	0.000	0.000	$1,835	$0	$0	$0		ESPC DO#3	9733-5			0.11
0	0.000	0.000	0.000	0.000	$380	$0	$0	$0		ESPC DO#3	9733-5			0.13
0	0.000	0.000	0.000	0.000	$1,005	$0	$0	$0			9733-5			3.88
0	0.000	0.000	0.000	0.000	$13,264	$0	$0	$0		ESPC DO#3	9114			0.46
0	0.000	0.000	0.000	0.000	$3,089	$0	$0	$0		ESPC DO#3	9114			0.27
0	0.000	0.000	0.000	0.000	$595	$0	$0	$0		ESPC DO#3	9114			0.03
0	448.606	0.000	0.000	0.000	$0	$579	$0	$4,437		Sewer Savings	9114			1.59
0	0.000	0.000	0.000	0.000	$5,670	$0	$0	$0		ESPC DO#3	9114			0.71

PSO	Site #	Site	HQ Measure #	If Covered, EISA S432 Reporting Year (YYYY)	Has this measure been included in an official DOE budget requests? If yes, provide Project/Measure #	Site Project #	Conservation Measure(s) Status	Conservation Measure(s) Type	Conservation Measure(s) Name or Description	Measure(s) Location (Zip Code)	Is this a multiple or single facility ECM?	Does the measure contribute to the reduction of deferred maintenance?	Is this effort/measure beyond typical O&M improvement to meet a goal?
NNSA	146	Y12	NNSA-0146-0167	2013			Identified	Appliance/Plug-load reductions	Install power strips with occupancy sensors	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0168	2013			Awarded/Approved	Lighting Improvements	9115 Replace T12 Light Fixtures with LED fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0169	2013			Awarded/Approved	Lighting Improvements	9115 Install Occupancy sensors to control lighting	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0170	2013			Identified	Appliance/Plug-load reductions	Install power strips with occupancy sensors	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0171	2013			Identified	Water and Sewer Conservation Systems	Replace plumbing fixtures with water efficient fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0172	2013			Awarded/Approved	Lighting Improvements	9116 Replace T12 Light Fixtures with LED fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0173	2013			Awarded/Approved	Lighting Improvements	9116 Replace T12 Light Fixtures with LED fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0174	2013			Awarded/Approved	Lighting Improvements	9116 Install Occupancy sensors to control lighting	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0175	2013			Identified	Appliance/Plug-load reductions	Install power strips with occupancy sensors	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0176	2013			Identified	Water and Sewer Conservation Systems	Replace plumbing fixtures with water efficient fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0177	2013			Awarded/Approved	Lighting Improvements	9710-0 3Replace T12 Light Fixtures with LED fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0178	2013			Awarded/Approved	Lighting Improvements	9710-03 Replace T12 Light Fixtures with LED fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0179	2013			Awarded/Approved	Lighting Improvements	9710-03 Replace T12 Light Fixtures with LED fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0180	2013			Awarded/Approved	Lighting Improvements	9710-03 Replace T12 Light Fixtures with LED fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0181	2013			Awarded/Approved	Lighting Improvements	9710-03Replace T12 Light Fixtures with LED fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0182	2013			Awarded/Approved	Lighting Improvements	9710-03Install Occupancy sensors to control lighting	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0183	2013			Identified	Appliance/Plug-load reductions	9710-03 Install power strips with occupancy sensors	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0184	2013			Identified	Water and Sewer Conservation Systems	9710-03 Replace plumbing fixtures with water efficient fixtures	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0185	2013			Identified	Lighting Improvements	9767-12 Replace HPS Light fixtures with LED fixtu	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0186	2013			Identified	Lighting Improvements	9767-12 Install Occupancy sensors to control lighting	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0187	2013			Identified	Lighting Improvements	9401-07 Replace HPS Light fixtures with LED fixtu	37831	Single	No	Yes
NNSA	146	Y12	NNSA-0146-0188	2013			Identified	Lighting Improvements	9720-82 Replace Quartz Halogen lamps with LED I	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0189	2013			Awarded/Approved	Lighting Improvements	9723-27 Replace the T12 Light Fixtures with T8 Light Fixtures	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0190	2013			Awarded/Approved	Lighting Improvements	9723-27 Replace the T12 Light Fixtures with T8 Light Fixtures	37831	Single	No	No
NNSA	146	Y12	NNSA-0146-0190	2013			Identified	Water and Sewer Conservation Systems	9723-27 Replace plumbing fixtures with water efficient fixtures	37831	Single	No	Yes

Funding Source/Type (Actual or Potential)	Starting Year of Measure Implementation (Anticipated or Actual - YYYY)	Completion/ Operational Year of Measure (Anticipated or Actual --	Estimated Service Life	Estimated Implementation Cost ($)	Are there plans to measure and verify the performance of this	If M&V has been			Is this a energy saving measure or renewable energy system?	Provide estimated energy saved or switched for each energy type, as applicable. If there are no savings associated with the meas						
						Type of M&V	MM	YYYY		Estimated Annual Electricity Saved (MWh/Yr)	Estimated Annual Fuel Oil Saved (10^3 Gal/Yr)	Estimated Annual Natural Gas Saved (10^3 Cf/Yr)	Estimated Annual LPG/Propane Saved (10^3 Gal/Yr)	Estimated Annual Coal Saved (Short Ton/Yr)	Estimated Annual Steam Saved (10^9 BTU/Yr)	Estimated Annual Other Saved (10^9 BTU/Yr)
M&R Direct	2016	2017	20	$9,883	TBD				Energy Saving ECM	52.324	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$217,917	TBD				Energy Saving ECM	89.89074	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$59,220	TBD				Energy Saving ECM	9.93384	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2014	2016	20	$4,630	TBD				Energy Saving ECM	18.61461	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2014	2016	35	$41,892	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$153,349	TBD				Energy Saving ECM	83.886	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$57,650	TBD				Energy Saving ECM	10.293	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$54,285	TBD				Energy Saving ECM	35.678	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2014	2016	20	$2,695	TBD				Energy Saving ECM	12.410	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2014	2016	35	$41,892	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$227,141	TBD				Energy Saving ECM	248.504	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$36,896	TBD				Energy Saving ECM	13.175	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$24,213	TBD				Energy Saving ECM	8.646	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$21,907	TBD				Energy Saving ECM	53.760	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$77,251	TBD				Energy Saving ECM	34.628	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2014	2016	20	$52,170	TBD				Energy Saving ECM	90.192	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2014	2016	20	$2,557	TBD				Energy Saving ECM	23.528	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2014	2016	35	$76,603	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2015	2015	20	$14,715	TBD				Energy Saving ECM	19.053	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2015	2015	20	$2,850	TBD				Energy Saving ECM	16.425	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2016	2016	20	$34,335	TBD				Energy Saving ECM	80.023	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2015	2015	5	$12,900	TBD				Energy Saving ECM	188.340	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2015	2015	20	$13,836	TBD				Energy Saving ECM	2.243	0.000	0.000	0.000	0.000	0.000	0.000
ESPC	2015	2015	20	$96,852	TBD				Energy Saving ECM	192.545	0.000	0.000	0.000	0.000	0.000	0.000
M&R Direct	2014	2016	35	$85,633	TBD				Water Saving ECM Only	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ure enter "0". If "Other", what is "Other"?	Estimated Annual Potable Water Savings (10^3 Gal/Yr)	Estimated Annual ILA (Non-Potable Freshwater) Savings (10^3 Gal/Yr)	Estimated Annual Renewable Electricity Output (MWh/Yr)	Estimated Annual Renewable Thermal Output (10^9 BTU/Yr)	Estimated Annual Energy Cost Savings ($/Yr)	Estimated Annual Water Cost Savings ($/Yr)	Estimated Annual Cost Savings ($/Yr) from switching to a renewable energy source	Estimated Annual Ancillary Cost Savings ($/Yr)	Site Priority	Additional Information	Bldg # (Optional)	SPO Comments/Notes		Savings to Investment Ratio (SIR)
0	0.000	0.000	0.000	0.000	$2,883	$0	$0	$0			9114			4.31
0	0.000	0.000	0.000	0.000	$5,082	$0	$0	$0		ESPC DO#3	9115			0.35
0	0.000	0.000	0.000	0.000	$562	$0	$0	$0		ESPC DO#3	9115			0.14
0	0.000	0.000	0.000	0.000	$1,052	$0	$0	$0			9115			3.41
0	276.836	0.000	0.000	0.000	$0	$357	$0	$3,737		Sewer Savings	9115			2.04
0	0.000	0.000	0.000	0.000	$4,742	$0	$0	$0		ESPC DO#3	9116			0.46
0	0.000	0.000	0.000	0.000	$582	$0	$0	$0		ESPC DO#3	9116			0.15
0	0.000	0.000	0.000	0.000	$2,017	$0	$0	$0		ESPC DO#3	9116			0.56
0	0.000	0.000	0.000	0.000	$702	$0	$0	$0			9116			3.91
0	170.360	0.000	0.000	0.000	$0	$220	$0	$2,300		Sewer Savings	9116			1.26
0	0.000	0.000	0.000	0.000	$14,049	$0	$0	$0		ESPC DO#3	9710-03			0.93
0	0.000	0.000	0.000	0.000	$745	$0	$0	$0		ESPC DO#3	9710-03			0.3
0	0.000	0.000	0.000	0.000	$489	$0	$0	$0		ESPC DO#3	9710-03			0.3
0	0.000	0.000	0.000	0.000	$3,039	$0	$0	$0		ESPC DO#3	9710-03			1.73
0	0.000	0.000	0.000	0.000	$1,958	$0	$0	$0		ESPC DO#3	9710-03			0.38
0	0.000	0.000	0.000	0.000	$5,098	$0	$0	$0		ESPC DO#3	9710-03			1.59
0	0.000	0.000	0.000	0.000	$1,330	$0	$0	$0			9710-03			7.82
0	2550.016	0.000	0.000	0.000	$0	$3,290	$0	$34,425		Sewer Savings	9710-03			9.78
0	0.000	0.000	0.000	0.000	$1,077	$0	$0	$0		Building not listed as included in DO#3	9767-12			1.15
0	0.000	0.000	0.000	0.000	$929	$0	$0	$0		Building not listed as included in DO#3	9767-12			5.07
0	0.000	0.000	0.000	0.000	$4,524	$0	$0	$0		Building not listed as included in DO#3	9401-07			2.05
0	0.000	0.000	0.000	0.000	$10,647	$0	$0	$0		Building not listed as included in DO#3	9720-82			3.07
0	0.000	0.000	0.000	0.000	$127	$0	$0	$0		ESPC DO#3	9723-27			0.15
0	0.000	0.000	0.000	0.000	$10,885	$0	$0	$0		ESPC DO#3	9723-27			1.79
0	1958.952	0.000	0.000	0.000	$0	$2,527	$0	$19,374.51		Sewer Savings	9723-27			5.67

Building Inventory Changes, HPSB Compliance and Projected Utilities Consumption

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): EPAct 2005, EISA 2007, DOE O 436.1

Instructions: Update this worksheet with information on new building construction, major renovation, replacements, and buildings that are to be disposed of in the near future, and address SPO requests. For additional guidance see comments in row 9 of each column and the CEDR Technical Support Document. Edited and new data cells should be highlighted. Note some of the information may be captured in the new FIMS module, please ensure consistency.

Source: Site/Lab

Basic Information																			For compliance with Sec 438 of EISA	For compliance with DOE O 436.1	Complete this section if *new* building project was CD-1 or lower on 10/1/06		Complete this section if construction has been completed	Notes	
PSO	Site #	Site	Project ID	Building/Project Name	Location (Zip Code)	Planned or Actual CD-2 Date (MM/YY)	Current CD Status	HQ Approved Change (Y/N)	Total Project Cost ($ M)	Number/Type of Facilities	Facility Change Status	Anticipated Electricity Usage (kWh/Yr)	Anticipated Natural Gas Usage (10^3 Cubic Feet/Yr)	Anticipated Potable Water Usage (10^3 Gal/Yr)	Anticipated ILA Water Usage (10^3 Gal/Yr)	Excluded from Energy Intensity?	Expected Building Occupancy or Removal Year (YYYY)	Anticipated Square Footage	If > 5,000 sq ft, will it maintain or restore pre-development hydrology?	What GP equivalency will the building achieve?	Estimated percentage below ASHRAE Std 90.1 in terms of energy use	If not at least 30% below ASHRAE Std 90.1, will design achieve maximum level of energy efficiency that is life-cycle cost-effective?	In terms of energy use, percentage below ANSI/ASHRAE/IESNA Standard 90.1 achieved	Additional Information	SPO Comments/Notes
NNSA	146	Y12	06-D-141	Uranium Processing Facility	37831	Pending	1		$3,500.0	3/Main Processing; Administration; Process Support	New	31,733,000	200	14,804	0	No	2023	363,466	Yes	LEED® Silver	20%	Yes			
NNSA	146	Y12	TBD	Fire Station	37831	Pending	0			Fire Station	New					No	2019	24,000	Yes	LEED® Gold					
NNSA	146	Y12	TBD	Emergency Operations Center	37831	Pending	0			Emergency Operations	New					No	2019	14,000	Yes	LEED® Gold					
NNSA	146	Y12	TBD	UPF Demolitions	37831	Pending	1	Yes	$1.0	7/Admin/Storage	Demolition	125,000	0	500	0	No	2014	17,122							
NNSA	146	Y12	TBD	9111	37831	Pending	0	Yes	$0.5	1/Admin	Demolition	130,000	0	0	0	No	2014	13,717							
NNSA	146	Y12	TBD	9112	37831	Pending	0	Yes	$0.5	1/Admin	Demolition	130,000	0	0	0	No	2014	11,804							
NNSA	146	Y12	TBD	9744	37831	Pending	0	Yes	$0.5	1/Shop	Demolition	0	0	0	0	No	2014	9,081							
NNSA	146	Y12	TBD	9808	37831	Pending	0	Yes	$0.5	1/Shop	Demolition	0	0	0	0	No	2014	7,540							

Data Centers

Requirement(s): EISA 2007, DOE O 436.1

Instructions: Update the list of data centers and complete all fields, if not using DOEGRIT. For additional guidance see comments in row 9 of each column and the CEDR Technical Support Document.

Source: Site/Lab

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Basic Information

PSO	Site #	Site	GOCO / FED	Data Center Name	Data Center Function	Assigned DCEP POC	Data Center POC	Target Date for Closure (CY) (If Scheduled)	Phase of Closure	Street Address	Street Address 2	City	State	Zip Code	Country	Gross Floor Area (Sq.Ft.)	Facility Cost ($/Sq.Ft. /Yr)	Electricity Included in Cost? (Y/N)	Ownership Type	Data Center Tier / Type	Electricity Metered (Y/N)
NNSA	146	Y12	GOCO	9117 (South)	General		Rick Shipp			Bear Creek Road		Oak Ridge	TN	37831	USA	6,608	$0.00	No	1: Agency Owned	2: Tier II	No
NNSA	146	Y12	GOCO	9103 (1) West	General		Rick Shipp	2016 or beyond	Considering	Bear Creek Road		Oak Ridge	TN	37831	USA	7,264	$0.00	No	1: Agency Owned	2: Tier II	No
NNSA	146	Y12	GOCO	9103 (2) East	General		Rick Shipp	2016 or beyond	Considering	Bear Creek Road		Oak Ridge	TN	37831	USA	5,626	$0.00	No	1: Agency Owned	2: Tier II	No

IT Facilities, Energy								Physical Servers										Virtualization				Network Storage			Notes
Total Data Center (Facility) Power Capacity (kW)	Average Data Center Electricity Usage (kWh)	Total Data Center IT Power Capacity (kW)	Average IT Electricity Usage (kWh)	Cost Per kWh (if known)	Watts per Sq.ft.	Estimated Power Usage Effectiveness (PUE)	Has A DC Pro Assessment been Conducted?	Current Rack Count (#)	Sq. Ft. per Rack	Super Computers or HPC Systems	Mainframes (IBM or compatible)	Mainframes (Other)	Windows Servers	Unix Servers	Linux Servers	Other	Total Physical Server Count (#)	Total Virtual Host Count (#)	Total Virtual OS Count (#)	Total Operating Systems Count (#)	Average CPU Utilization of All Physical Servers	SAN/NAS/ DAS - Total (TB)	SAN/NAS/ DAS - Used (TB)	Percent Used	Additional Information
900.000	113.000	729.000	55.000	$0.06	8.32	2.05	No	26	254	0	0	1	60	11	0	0	80	8	20	92	20%	135	62	46%	Estimated based on installed equipment
1,220.000	298.000	1,018.000	206.000	$0.06	28.36	1.45	No	80	91	0	0	4	132	68	0	0	262	58	320	524	20%	386	200	52%	Estimated based on installed equipment
850.000	130.000	702.000	68.000	$0.06	12.09	1.91	No	29	194	0	0	11	29	16	0	0	82	26	159	215	20%	138	75	54%	Estimated based on installed equipment

Electronic Stewardship - Acquisition and Disposal

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): E.O. 13514, E.O. 13423

Instructions: Please complete FY 2013 electronic stewardship data related to acquisition and disposal. FY 2012 data from PPTRS has been included as an example of the updated format. Acquisition data is required to be entered only for categories which have EPEAT standards, while electronics disposal is required for all categories. "Bulk Electronics Disposal" can be chosen under the Electronic Category (Column E) to enter the weight of product recycled if the number of any individual products is unknown. If entering data for both Bulk Electronics Disposal and individual product disposal, there should be no overlap (e.g. if 8 LCD monitors are entered as recycled, the weight of those monitors should not be included in any "Bulk Electronics Disposal" entry). If available, enter any details on methedology used for collecting this data.

Source: Site/Lab

Methodology

Basic Information					EPEAT Acquisition								Disposal							Notes	
PSO	Site #	Site	FY	Electronic Category	EPEAT Qualified Product?	Required Data Entry	Total Number Acquired	# of EPEAT Bronze Acquired	# of EPEAT Silver Acquired	# of EPEAT Gold Acquired	# of ENERGY STAR (but not EPEAT) Acquired	Non-EPEAT Units	EPEAT %	Disposal Units	Transferred or Donated	Recycled by Certified Recycler	Recycled by non-Certified Recycler	Sent for Disposal (e.g. landfill)	Percentage Transferred/ Donated Only	Percentage Recycled or Transferred/Donated	Additional Information	SPO Comments
NNSA	146	Y12	2012	Desktop Computers	No	Acquisition and/or Disposal	965	0	0	965	0	0	N/A	# of Units	0	0	1235	0	0.0%	100%		From PPTRS.
NNSA	146	Y12	2012	LCD Monitors	Yes	Acquisition and/or Disposal	346	0	0	346	0	0	100%	# of Units	0	0	449	0	0.0%	100%		From PPTRS.
NNSA	146	Y12	2012	CRT Monitors	No	Acquisition and/or Disposal	N/A	N/A	N/A	N/A	N/A	N/A	--	# of Units	0	0	299	0	0.0%	100%		From PPTRS.
NNSA	146	Y12	2012	Laptop Computers	Yes	Acquisition and/or Disposal	220	0	0	220	0	0	100%	# of Units	0	0	0	0	--	--		From PPTRS.
NNSA	146	Y12	2012	Thin Clients	Yes	Acquisition and/or Disposal	45	0	45	0	0	0	100%	# of Units					--	--		From PPTRS.
NNSA	146	Y12	2012	Printers	No	Acquisition and/or Disposal	N/A	N/A	N/A	N/A	N/A	N/A	--	# of Units	0	0	0	0	--	--		From PPTRS.
NNSA	146	Y12	2012	Multifunction Devices	No	Acquisition and/or Disposal	N/A	N/A	N/A	N/A	N/A	N/A	--	# of Units	0	0	0	0	--	--		From PPTRS.
NNSA	146	Y12	2012	Televisions	No	Acquisition and/or Disposal	N/A	N/A	N/A	N/A	N/A	N/A	--	# of Units	0	0	0	0	--	--		From PPTRS.
NNSA	146	Y12	2012	Servers	No	Disposal Only	N/A	N/A	N/A	N/A	N/A	N/A	--	# of Units	0	0	0	0	--	--		From PPTRS.
NNSA	146	Y12	2012	Mobile Phones	No	Disposal Only	N/A	N/A	N/A	N/A	N/A	N/A	--	# of Units	0	0	0	0	--	--		From PPTRS.
NNSA	146	Y12	2012	Personal Digital Assistants	No	Disposal Only	N/A	N/A	N/A	N/A	N/A	N/A	--	# of Units	0	0	0	0	--	--		From PPTRS.
NNSA	146	Y12	2012	Bulk Electronics Disposal	N/A	Disposal Only	N/A	N/A	N/A	N/A	N/A	N/A	--	Metric Tons	0	26.08		0.207	0.0%	99%		From PPTRS.
NNSA	146	Y12	2013	Desktop Computers	No	Acquisition and/or Disposal	878	0	0	863	0	15	N/A	# of Units			972		0.0%	100%		
NNSA	146	Y12	2013	LCD Monitors	Yes	Acquisition and/or Disposal	976	0	21	947	0	8	99%	# of Units			431		0.0%	100%		
NNSA	146	Y12	2013	CRT Monitors	No	Acquisition and/or Disposal	4	N/A	N/A	N/A	N/A	4	N/A	# of Units			107		0.0%	100%		
NNSA	146	Y12	2013	Laptop Computers	Yes	Acquisition and/or Disposal	211	0	0	211	0	0	100%	# of Units					--	--		
NNSA	146	Y12	2013	Thin Clients	Yes	Acquisition and/or Disposal	195	0	2	191	0	2	99%	# of Units					--	--		
NNSA	146	Y12	2013	Printers	Yes	Acquisition and/or Disposal	241	113	32	0	57	96	60%	# of Units					--	--		
NNSA	146	Y12	2013	Multifunction Devices	Yes	Acquisition and/or Disposal	9	0	0	0	9	9	0%	# of Units					--	--		
NNSA	146	Y12	2013	Televisions	Yes	Acquisition and/or Disposal	4	0	0	0	4	4	0%	# of Units					--	--		
NNSA	146	Y12	2013	Servers	No	Disposal Only	N/A	N/A	N/A	N/A	N/A	N/A	--	# of Units					--	--		
NNSA	146	Y12	2013	Mobile Phones	No	Disposal Only	N/A	N/A	N/A	N/A	N/A	N/A	--	# of Units					--	--		
NNSA	146	Y12	2013	Personal Digital Assistants	No	Disposal Only	N/A	N/A	N/A	N/A	N/A	N/A	--	# of Units					--	--		
NNSA	146	Y12	2013	Bulk Electronics Disposal	N/A	Disposal Only	N/A	N/A	N/A	N/A	N/A	N/A	--	Metric Tons			22.2	0.15	0.0%	99%		

Electronic Stewardship - Operations

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): E.O. 13514, E.O. 13423

Instructions: Please enter FY 2013 data for both power management of computers and monitors and duplex printing for printers. FY 2012 data has been entered as an example of the updated format. For Column H, printers, copiers and multifunction devices (MFDs) are considered ineligible for duplex printing if they are only capable of single sided printing. Laptops, desktops, and monitors are considered exempt from power management requirements if they are running mission critical applications (e.g, facility security monitoring, uninterruptable laboratory experiments).

Source: Site/Lab

Methodology

Basic Information						Green Operation				Notes	
PSO	Site #	Site	FY	Electronic Category	Required Data Entry	Number Owned	Number Ineligible from Power Management (exempt) or Duplex Printing (incapable)	Number Using Power Management or Duplex Printing	Percentage	Additional Information	SPO Comments
NNSA	146	Y12	2012	Printers, Copiers, MFDs	Duplex Printing	779	264	321	62%		From PPTRS
NNSA	146	Y12	2012	Desktop Computers	Power Management	7275	6215	1060	100%		From PPTRS
NNSA	146	Y12	2012	CRT Monitors	Power Management	191	0	191	100%		From PPTRS
NNSA	146	Y12	2012	LCD Monitors	Power Management	9363	0	9363	100%		From PPTRS
NNSA	146	Y12	2012	Laptop Computers	Power Management	460	460	0	--		From PPTRS
NNSA	146	Y12	2013	Desktop Computers	Power Management	6862	5772	1090	100%		
NNSA	146	Y12	2013	CRT Monitors	Power Management	100	0	100	100%		
NNSA	146	Y12	2013	LCD Monitors	Power Management	9850	0	9850	100%		
NNSA	146	Y12	2013	Laptop Computers	Power Management	461	0	461	100%		
NNSA	146	Y12	2013	Printers, Copiers, MFDs	Duplex Printing	813	152	336	51%		

Fugitive Emissions: Refrigerants and Fluorinated Gases, Mixed Refrigerants

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: Provide FY 2013 refrigerant data using the default or simplified material balance approach, a short description of the methodology used for gathering information both in the CEDR and SSP narrative, and address SPO requests. If historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column.

Source: Site/Lab

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
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Red	Calculated fields. No action required.

Methodology

Refrigerant Information

PSO	Site #	Site	FY	Data Entry Type	Refrigerant Type	Composition	Default Approach: Quantity Purchased/ Issued (lbs)	Default Approach: Quantity Returned to Supply (lbs)	OR Simplified Material Balance Approach: Quantity in storage at beginning of inventory year (lbs)	Quantity in storage at end of inventory year (lbs)	Sum of all refrigerant acquisitions (lbs)	Sum of all refrigerant disbursements (lbs)	Total capacity of refrigerant in equipment at beginning of inventory year (lbs)	Total capacity of refrigerant in equipment at end of inventory year (lbs)	Emitted Refrigerant Quantity (lbs)	F-Gas: Type 1 Material	F-Gas: Type 1 Amount (lbs)	F-Gas: Type 2 Material	F-Gas: Type 2 Amount (lbs)	F-Gas: Type 3 Material	F-Gas: Type 3 Amount (lbs)	F-Gas: Type 4 Material	F-Gas: Type 4 Amount (lbs)	Anthropogenic $MtCO_2e$	Notes: Additional Information	Notes: SPO Notes
NNSA	146	Y12	2008	Fiscal Year	R-134a	R-134a	407.000								407.000	HFC-134a	407.000	-	-	-	-	-	-	239.996	FY 2008 Baseline data provided and checked to verify fugitives are not double co	
NNSA	146	Y12	2008	Fiscal Year	R-23	R-23	93.000								93.000	HFC-23	93.000	-	-	-	-	-	-	493.553		
NNSA	146	Y12	2008	Fiscal Year	R-125	R-125	12.000								12.000	HFC-125	12.000	-	-	-	-	-	-	15.241	FY2008 Total Mix Refrig GHG =	
NNSA	146	Y12	2008	Fiscal Year	R-143a	R-143a	-								-	HFC-143a	-	-	-	-	-	-	-	-	74878.97%	
NNSA	146	Y12	2011	Fiscal Year	R-134a	R-134a	233.000								233.000	HFC-134a	233.000	-	-	-	-	-	-	137.393		
NNSA	146	Y12	2011	Fiscal Year	R-23	R-23	6.000								6.000	HFC-23	6.000	-	-	-	-	-	-	31.842		
NNSA	146	Y12	2011	Fiscal Year	R-402B	R-125/290/22	26.000								26.000	HFC-125	9.880	-	-	-	-	-	-	12.548		
NNSA	146	Y12	2011	Fiscal Year	R-404A	R-125/143a/134a	89.000								89.000	HFC-125	39.160	HFC-134a	3.560	HFC-143a	46.280	-	-	131.605		
NNSA	146	Y12	2011	Fiscal Year	R-407C	R-32/125/134a	25.000								25.000	HFC-32	5.750	HFC-125	6.250	HFC-134a	13.000	-	-	17.299		
NNSA	146	Y12	2011	Fiscal Year	R-410A	R-32/125	85.000								85.000	HFC-32	42.500	HFC-125	42.500	-	-	-	-	66.508		
NNSA	146	Y12	2011	Fiscal Year	R-420A	R-134a/142b	25.000								25.000	HFC-134a	22.000	-	-	-	-	-	-	12.973		
NNSA	146	Y12	2011	Fiscal Year	R-502	R-22/115	30.000								30.000	-	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2011	Fiscal Year	R-503	R-23/13	10.000								10.000	HFC-23	4.010	-	-	-	-	-	-	21.281	FY2011 Total Mix Refrig GHG =	
NNSA	146	Y12	2011	Fiscal Year	R-508B	R-23/116	20.000								20.000	HFC-23	9.200	PFC-116	10.800	-	-	-	-	93.894	52534.28%	
NNSA	146	Y12	2012	Fiscal Year	R-134a	R-134a			420.000	342.000	61.000		1,050.000	1,050.000	139.000	HFC-134a	139.000	-	-	-	-	-	-	81.964		
NNSA	146	Y12	2012	Fiscal Year	R-23	R-23			40.000	40.000	20.000				20.000	HFC-23	20.000	-	-	-	-	-	-	106.141		
NNSA	146	Y12	2012	Fiscal Year	R-14	R-14			56.000	70.000	20.000				6.000	PFC-14	6.000	-	-	-	-	-	-	17.690		
NNSA	146	Y12	2012	Fiscal Year	R-116	R-116			12.000	12.000	-				-	PFC-116	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2012	Fiscal Year	R-401A	R-22/152a/124			75.000	45.000	-				30.000	HFC-152a	3.900	-	-	-	-	-	-	0.248		
NNSA	146	Y12	2012	Fiscal Year	R-402A	R-125/290/22			27.000	27.000	-				-	HFC-125	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2012	Fiscal Year	R-402B	R-125/290/22			26.000	26.000	-				-	HFC-125	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2012	Fiscal Year	R-404A	R-125/143a/134a			89.000	89.000	25.000				25.000	HFC-125	11.000	HFC-134a	1.000	HFC-143a	13.000	-	-	36.968		
NNSA	146	Y12	2012	Fiscal Year	R-407C	R-32/125/134a			25.000	50.000	25.000				-	HFC-32	-	HFC-125	-	HFC-134a	-	-	-	-		
NNSA	146	Y12	2012	Fiscal Year	R-410A	R-32/125			75.000	200.000	200.000				75.000	HFC-32	37.500	HFC-125	37.500	-	-	-	-	58.683		
NNSA	146	Y12	2012	Fiscal Year	R-420A	R-134a/142b			80.000	80.000	-				-	HFC-134a	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2012	Fiscal Year	R-500	R-12/152a			10.000	-	-				10.000	HFC-152a	2.620	-	-	-	-	-	-	0.166		
NNSA	146	Y12	2012	Fiscal Year	R-502	R-22/115			80.000	110.000	30.000				-	-	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2012	Fiscal Year	R-503	R-23/13			10.000	50.000	40.000				-	HFC-23	-	-	-	-	-	-	-	-	FY 2012 Total Mix Refrig GHG =	
NNSA	146	Y12	2012	Fiscal Year	R-508B	R-23/116			20.000	20.000					-	HFC-23	-	PFC-116	-	-	-	-	-	-	30185.99%	
NNSA	146	Y12	2013	Fiscal Year	R-134a	R-134a			342.000	375.000	180.000		1,050.000	1,050.000	147.000	HFC-134a	147.000	-	-	-	-	-	-	86.681		
NNSA	146	Y12	2013	Fiscal Year	R-23	R-23			100.000	100.000	-				-	HFC-23	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2013	Fiscal Year	R-14	R-14			70.000	70.000	-				-	PFC-14	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2013	Fiscal Year	R-116	R-116			12.000	-	-				12.000	PFC-116	12.000	-	-	-	-	-	-	50.077		
NNSA	146	Y12	2013	Fiscal Year	R-401A	R-22/152a/124			45.000	45.000	-				-	HFC-152a	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2013	Fiscal Year	R-402A	R-125/290/22			27.000	27.000	-				-	HFC-125	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2013	Fiscal Year	R-402B	R-125/290/22			26.000	26.000	-				-	HFC-125	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2013	Fiscal Year	R-404A	R-125/143a/134a			89.000	188.000	99.000				-	HFC-125	-	HFC-134a	-	HFC-143a	-	-	-	-		
NNSA	146	Y12	2013	Fiscal Year	R-407C	R-32/125/134a			50.000	250.000	200.000				-	HFC-32	-	HFC-125	-	HFC-134a	-	-	-	-		
NNSA	146	Y12	2013	Fiscal Year	R-410A	R-32/125			200.000	150.000	100.000				150.000	HFC-32	75.000	HFC-125	75.000	-	-	-	-	117.367		
NNSA	146	Y12	2013	Fiscal Year	R-420A	R-134a/142b			80.000	210.000	130.000				-	HFC-134a	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2013	Fiscal Year	R-500	R-12/152a			0	0	0				-	HFC-152a	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2013	Fiscal Year	R-502	R-22/115			110	90	0				20.000	-	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2013	Fiscal Year	R-503	R-23/13			50	50	0				-	HFC-23	-	-	-	-	-	-	-	-		
NNSA	146	Y12	2013	Fiscal Year	R-508B	R-23/116			20	10	0				10.000	HFC-23	4.600	PFC-116	5.400	-	-	-	-	46.947		

Fugitive Emissions: Fugitive Fluorinated Gases and Other Fugitive Emissions (Not to Include Process Emissions)

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Red	Calculated fields. No action required.

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: Provide FY 2013 fugitive data using the default or simplified material balance approach, a short description of the methodology used for gathering information both in the CEDR and SSP narrative, and address SPO requests. Do not report process emissions in this tab. If historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column.

Source: Site/Lab

Methodology

Data was gathered using HMIS inventory, procurement data, waste figures obtained from production

Fugitive Gas Information

							Default Approach	OR	Simplified Material Balance Approach								Notes	
PSO	Site #	Site	FY	Data Entry Type	Material Type	Composition	Quantity Purchased/ Issued (lbs)	Quantity Returned to Supply (lbs)	Quantity in storage at beginning of inventory year (lbs)	Quantity in storage at end of inventory year (lbs)	Sum of all F-Gas acquisitions (lbs)	Sum of all F-Gas disbursements (lbs)	Total capacity of F-Gas in equipment at beginning of inventory year (lbs)	Total capacity of all F-Gas in equipment at end of inventory year (lbs)	Quantity Emitted (lbs)	Anthropogenic $MtCO_2e$	Additional Information	SPO Notes
NNSA	146	Y12	2008		Carbon dioxide	CO2	2,842.000								2,842.000	1.289		
NNSA	146	Y12	2008		HFC-134	C2H2F4	60.000								60.000	27.216		
NNSA	146	Y12	2008		HFC-152a	CH3CHF2	7.000								7.000	0.445		
NNSA	146	Y12	2008		HFC-245fa	CHF2CH2CF3	467.000								467.000	218.182		
NNSA	146	Y12	2008		HFC-43-10mee	CF3CFHCFHCF	25,840.000								25,840.000	15,237.062	FY08 Ttl GHGs F Gas =	
NNSA	146	Y12	2008		Sulfur hexafluoride	SF6	582.000								582.000	6,309.374	2179356.79%	
NNSA	146	Y12	2010		Methane	CH4	4,059.000								4,059.000	38.664		
NNSA	146	Y12	2010		Carbon dioxide	CO2	77.000								77.000	0.035		
NNSA	146	Y12	2010		HFC-125	C2HF5	9.000								9.000	11.431		
NNSA	146	Y12	2010		HFC-134	C2H2F4	100.000								100.000	45.359		
NNSA	146	Y12	2010		HFC-134a	CH2FCF3	250.000								250.000	147.417		
NNSA	146	Y12	2010		HFC-143a	C2H3F3	11.000								11.000	18.960		
NNSA	146	Y12	2010		HFC-245fa	CHF2CH2CF3	197.000								197.000	92.038		
NNSA	146	Y12	2010		HFC-43-10mee	CF3CFHCFHCF	123.000								123.000	72.529		
NNSA	146	Y12	2010		PFC-14	CF4	1.000								1.000	2.948	FY10 Ttl GHGs F Gas =	
NNSA	146	Y12	2010		Sulfur hexafluoride	SF6	246.000								246.000	2,666.849	309623.08%	
NNSA	146	Y12	2011		Carbon dioxide	CO2	47,585.000								47,585.000	21.584		
NNSA	146	Y12	2011		HFC-134a	CH2FCF3	5.000								5.000	2.948		
NNSA	146	Y12	2011		HFC-152a	CH3CHF2	9.000								9.000	0.572		
NNSA	146	Y12	2011		HFC-245fa	CHF2CH2CF3	1.000								1.000	0.467		
NNSA	146	Y12	2011		HFC-43-10mee	CF3CFHCFHCF	27,811.000								27,811.000	16,399.301	FY11 Ttl GHGs F Gas =	
NNSA	146	Y12	2011		Methane	CH4	2,497.000								2,497.000	23.785	Methane data corrected by correcting a weight conversio	
NNSA	146	Y12	2011		Sulfur hexafluoride	SF6	528.000								528.000	5,723.968	2217262.57%	
NNSA	146	Y12	2012		Methane	CH4			1,480.000	1,396.000	2,078.000				2,162.000	20.594		
NNSA	146	Y12	2012		Carbon dioxide	CO2			10,887.000	5,425.000	10,200.000				15,662.000	7.104		
NNSA	146	Y12	2012		Nitrous Oxide	N2O			119.000	119.000	-				-	-		
NNSA	146	Y12	2012		HFC-134	C2H2F4			130.000	310.000	180.000				-	-		
NNSA	146	Y12	2012		HFC-134a	CH2FCF3			37.000	11.000	3.000				29.000	17.100		
NNSA	146	Y12	2012		HFC-152a	CH3CHF2			13.000	30.000	78.000				61.000	3.874		
NNSA	146	Y12	2012		HFC-245fa	CHF2CH2CF3			5.000	2.000	-				3.000	1.402		
NNSA	146	Y12	2012		HFC-365mfc	CH3CF2CH2CF3			-	-	1.000				1.000	0.360		
NNSA	146	Y12	2012		HFC-43-10mee	CF3CFHCFHCF2CF3			18,682.000	17,930.000	19,435.000				20,187.000	11,903.660	Switched to Material Balance Approach in FY 2012	
NNSA	146	Y12	2012		PFC-14	CF4			56.000	70.000	20.000				6.000	17.690	FY 2012 Tt; Fgas GHG=	
NNSA	146	Y12	2012		Sulfur hexafluoride	SF6			121.000	147.000	26.000				-	-	1197178.43%	
NNSA	146	Y12	2013		Methane	CH4			1,396.000	3,086.000	1,934.000				244.000	2.324		
NNSA	146	Y12	2013		Carbon dioxide	CO2			5,423.000	2,906.000	65.000				2,582.000	1.171		
NNSA	146	Y12	2013		Nitrous Oxide	N2O			119.000	100.000	-				19.000	2.672		
NNSA	146	Y12	2013		HFC-134	C2H2F4			310.000	-	-				310.000	140.614		
NNSA	146	Y12	2013		HFC-134a	CH2FCF3			10.000	43.000	61.000				28.000	16.511		
NNSA	146	Y12	2013		HFC-152a	CH3CHF2			23.000	11.000	11.000				23.000	1.461		
NNSA	146	Y12	2013		HFC-245fa	CHF2CH2CF3			2.000	340.000	617.000				279.000	130.349		
NNSA	146	Y12	2013		HFC-365mfc	CH3CF2CH2CF3			-	-	-				-	-		
NNSA	146	Y12	2013		HFC-43-10mee	CF3CFHCFHCF2CF3			17,862.000	12,998.000	10,767.000	7,180.000			8,451.000	4,983.298	Disbursement was Vertrel collected and disposed as wast	
NNSA	146	Y12	2013		PFC-14	CF4			70	70	0				-	-		
NNSA	146	Y12	2013		Sulfur hexafluoride	SF6			147	181	34				-	-		

Fugitive Emissions: On-site Wastewater Treatment (Domestic Only)

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: Provide FY 2013 on-site wastewater treatment plant/system data by type, a short description of the methodology used for gathering information both in the CEDR and SSP narrative, and address SPO requests. If historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column.

Source: Site/Lab

Key:	
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Red	Calculated fields. No action required.

Methodology

Population served is based upon population of buildings served by the on-site industrial wastewater treatment plant and a small portion of the facility that utilizes a septic system.

On-Site Wastewater Treatment Information														Notes	
PSO	Site #	Site	FY	Workdays per Year	Centralized WWTP with Anaerobic Digestion (Persons)	Centralized WWTP with Nitrification / Denitrification (Persons)	Centralized WWTP without Nitrification / Denitrification (Persons)	Effluent Discharge to Rivers and Estuaries with Nitrification / Denitrification (Persons)	Effluent Discharge to Rivers and Estuaries without Nitrification / Denitrification (Persons)	Wastewater Treatment Lagoons (Persons)	Septic Systems (Persons)	Biogenic $MtCO_2e$	Anthropogenic $MtCO_2e$	Additional Information	SPO Notes
NNSA	146	Y12	2011	208.000		3,058.000		3,058.000				-	6.886	Y-12 corrected Workdays/yr	
NNSA	146	Y12	2008	208.000		3,053.000		3,053.000				-	6.875	Y-12 corrected Workdays/yr and added plant population se	
NNSA	146	Y12	2010	208.000		3,221.000		3,221.000				-	7.253	Y-12 corrected Workdays/yr and added plant population se	
NNSA	146	Y12	2012	208.000		2,953.000		2,953.000				-	6.649		
NNSA	146	Y12	2013	208.000		2,914.000		2,914.000			28.000	-	8.213		

Contracted Wastewater Treatment (Domestic Only)

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: Provide FY 2013 contracted wastewater treatment plant/system data, a short description of the methodology used for gathering information both in the CEDR and SSP narrative, and address SPO requests. If actual percentages are available from wastewater treatment plant/system contractor, site may override the current calculated percentages in columns I, K, M, and O. Finally, if historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column.

Source: Site/Lab

Methodology

Y-12 sanitary wastewater is sent to the City of Oak Ridge Activated Sludge Treatment Plant. Based upon information received from City of Oak Ridge personnel, the treatment system includes nitrification and limited denitrification.

Contracted Wastewater Information																Notes	
PSO	Site #	Site	FY	Workdays per Year	Centralized WWTP with Anaerobic Digestion (Persons)	Centralized WWTP with Nitrification / Denitrification		Centralized WWTP without Nitrification / Denitrification		Effluent Discharge to Rivers and Estuaries with Nitrification / Denitrification		Effluent Discharge to Rivers and Estuaries without Nitrification / Denitrification		Wastewater Treatment Lagoons		Biogenic $MtCO_2e$	Total Anthropogenic $MtCO_2e$	Additional Information	SPO Notes
						%	Persons	%	Persons	%	Persons	%	Persons	%	Persons				
NNSA	146	Y12	2008	208.000	4,940.0	100.0%	4,940.0	0.0%	-	100.0%	4,940.0	0.0%	-	0.0%	-	14.136	11.195	Y-12 updated treatment me	SPO Note: Updated baseline
NNSA	146	Y12	2011	208.000	5,122.0	100.0%	5,122.0	0.0%	-	100.0%	5,122.0	0.0%	-	0.0%	-	14.657	11.607	Y-12 updated number of days and treatment methodolog	
NNSA	146	Y12	2010	208.000	5,084.0	100.0%	5,084.0	0.0%	-	100.0%	5,084.0	0.0%	-	0.0%	-	14.548	11.521	Y-12 provided raw data and updated treatment methodo	
NNSA	146	Y12	2012	208.000	5,041.0	100.0%	5,041.0	0.0%	-	100.0%	5,041.0	0.0%	-	0.0%	-	14.425	11.424		
NNSA	146	Y12	2013	208.000	5,108.0	100.0%	5,108.0	0.0%	-	100.0%	5,108.0	0.0%	-	0.0%	-	14.617	11.576	Updated treatment methodology	

Business Air Travel

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: Provide FY 2013 air travel data by flight type for the primary contractor, a short description of the methodology used for gathering information both in the CEDR and SSP narrative, and address SPO requests. Federal business air travel information will be pulled by DOE headquarters from GovTrip. If historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column.

Source: Site/Lab

Methodology

Travel miles are based on actual miles flown. Y-12 receives reports which include the actual miles ticketed by the responsible travel agency.

Air Travel Information										Notes	
PSO	Site #	Site	FY	Process Type	Flight Type	Fuel Type	Consumption/ Usage	Unit of Measure	Anthropogenic $MtCO_2e$	Additional Information	SPO Notes
NNSA	146	Y12	2008	Air Business Travel	Unknown	Jet Fuel	7,009,956	Passenger miles	1,919.700		
NNSA	146	Y12	2010	Air Business Travel	Unknown	Jet Fuel	8,680,330	Passenger miles	2,377.138		
NNSA	146	Y12	2011	Air Business Travel	Unknown	Jet Fuel	7,389,020	Passenger miles	2,023.508		
NNSA	146	Y12	2012	Air Business Travel	Unknown	Jet Fuel	6,488,032	Passenger miles	1,240.096		
NNSA	146	Y12	2013	Air Business Travel	Short Haul (< 300 miles)	Jet Fuel		Passenger miles	-		
NNSA	146	Y12	2013	Air Business Travel	Medium Haul (300 mile ≤ x < 70	Jet Fuel		Passenger miles	-		
NNSA	146	Y12	2013	Air Business Travel	Long Haul (≥ 700 miles)	Jet Fuel		Passenger miles	-		
NNSA	146	Y12	2013	Air Business Travel	Unknown	Jet Fuel	4,233,541	Passenger miles	809.182		

Business Ground Travel (Domestic Only)

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: Provide FY 2013 ground travel data for the primary contractor, a short description of the methodology used for gathering information both in the CEDR and SSP narrative, and address SPO requests. Federal business ground travel information will be pulled by DOE headquarters from GovTrip. If historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column.

Source: Site/Lab

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Methodology

Number of rentals and personal vehicle miles traveled are calculated based upon business travel expense data.

Ground Travel Information											Notes	
PSO	Site #	Site	FY	Process Type	Vehicle Type	Fuel Type	Consumption/ Usage	Unit of Measure	Site Average Miles per Trip	Default Average Miles per Trip	Anthropogenic $MtCO_2e$	Additional Information	SPO Notes
NNSA	146	Y12	2012	POV Mileage	Passenger Car	Gasoline	487,366	Total Reimbursed Mileage		-	182.553		
NNSA	146	Y12	2008	Rental Trip Mileage	Passenger Car	Gasoline	1,301	Number of Agency Busi	280.000	419.000	136.449		SPO Note: Revised data per site upda
NNSA	146	Y12	2008	POV Mileage	Passenger Car	Gasoline	519,466	Total Reimbursed Mileage		-	194.577		SPO Note: Revised data per site upda
NNSA	146	Y12	2010	Rental Trip Mileage	Passenger Car	Gasoline	1,650	Number of Agency Busi	350.000	419.000	216.315	Y12 added raw data for 2010 rentals	
NNSA	146	Y12	2011	Rental Trip Mileage	Passenger Car	Gasoline	1,658	Number of Agency Busi	419.000	419.000	260.215		
NNSA	146	Y12	2011	POV Mileage	Passenger Car	Gasoline	624,084	Total Reimbursed Mileage		-	233.764		
NNSA	146	Y12	2012	Rental Trip Mileage	Passenger Car	Gasoline	1,204	Number of Agency Business Trips		210.000	94.707		
NNSA	146	Y12	2010	POV Mileage	Passenger Car	Gasoline	519,466	Total Reimbursed Mileage		-	194.577	Y12 added raw data for 2010 POV miles	
NNSA	146	Y12	2013	Rental Trip Mileage	Passenger Car	Gasoline	895	Number of Agency Busi	350.000	210.000	117.334		
NNSA	146	Y12	2013	POV Mileage	Passenger Car	Gasoline	524,524	Total Reimbursed Mileage		-	196.471		

Employee Commuting (Domestic Only)

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: Provide FY 2013 commuting data for both Federal and primary contractor employees, a short description of the methodology used for gathering information both in the CEDR and SSP narrative, and address SPO requests. If historical data is updated please be sure to address this in your SSP narrative, highlight the cell, and note the change in the "Additional Information" column.

Source: Site/Lab

Methodology

Calculated average employee commute distance from employee data and applied average commute distance to the ratio of vehicle types driven by site employees. Incorporated carpooling data received from Smart Trips Program (local organization that promotes and tracks carpooling, alternative transportation usage).

Ground Travel Information												Notes	
PSO	Site #	Site	FY	Process Type	Vehicle Type	Fuel Type	Consumption / Usage	Unit of Measure	Site Number of Commute Days per Year	Default Number of Commute Days per Year	Anthropogenic $MtCO_2e$	Additional Information	SPO Notes
NNSA	146	Y12	2008	Personal Owned Vehicles	POV Passenger Car	Gasoline	202,513	Commute (Miles / Day)	230.000	230.000	17,446.800		
NNSA	146	Y12	2010	Personal Owned Vehicles	POV Passenger Car	Gasoline	217,610	Commute (Miles / Day)	230.000	230.000	18,747.400		
NNSA	146	Y12	2011	Personal Owned Vehicles	POV Passenger Car	Gasoline	86,446	Commute (Miles / Day)	208.000	230.000	6,735.082		
NNSA	146	Y12	2011	Personal Owned Vehicles	POV SUV or Truck	Gasoline	95,570	Commute (Miles / Day)	208.000	230.000	10,621.576		
NNSA	146	Y12	2011	Personal Owned Vehicles	POV SUV or Truck	Diesel	5,957	Commute (Miles / Day)	208.000	230.000	695.385		
NNSA	146	Y12	2011	Personal Owned Vehicles	Motorcycle	Gasoline	3,732	Commute (Miles / Day)	208.000	230.000	132.471		
NNSA	146	Y12	2011	Personal Owned Vehicles	POV Passenger Car	Hybrid	603	Commute (Miles / Day)	208.000	230.000	24.303		
NNSA	146	Y12	2012	Personal Owned Vehicles	POV Passenger Car	Gasoline	85,459	Commute (Miles / Day)	208.000	230.000	6,658.138		
NNSA	146	Y12	2012	Personal Owned Vehicles	POV SUV or Truck	Gasoline	94,519	Commute (Miles / Day)	208.000	230.000	10,504.837		
NNSA	146	Y12	2012	Personal Owned Vehicles	POV SUV or Truck	Diesel	5,888	Commute (Miles / Day)	208.000	230.000	687.429		
NNSA	146	Y12	2012	Personal Owned Vehicles	POV Passenger Car	Hybrid	608	Commute (Miles / Day)	208.000	230.000	24.022		
NNSA	146	Y12	2012	Personal Owned Vehicles	Motorcycle	Gasoline	3,685	Commute (Miles / Day)	208.000	230.000	130.793		
NNSA	146	Y12	2013	Personal Owned Vehicles	POV Passenger Car	Gasoline	87,189	Commute (Miles / Day)	208.000	230.000	6,792.941		
NNSA	146	Y12	2013	Personal Owned Vehicles	POV SUV or Truck	Gasoline	96,443	Commute (Miles / Day)	208.000	230.000	10,718.664		
NNSA	146	Y12	2013	Personal Owned Vehicles	POV SUV or Truck	Diesel	5,995	Commute (Miles / Day)	208.000	230.000	699.911		
NNSA	146	Y12	2013	Personal Owned Vehicles	POV Passenger Car	Hybrid	621	Commute (Miles / Day)	208.000	230.000	24.536		
NNSA	146	Y12	2013	Personal Owned Vehicles	Motorcycle	Gasoline	3,764	Commute (Miles / Day)	208.000	230.000	133.590		

Fugitive Emissions: On-site Landfills and Municipal Solid Waste Facilities (Domestic Only)

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: This is a required tab for FY 2013 GHG estimates of on-site landfill/municipal solid waste emissions and GHG goal performance. Sites may elect to provide a short description of the methodology used for gathering this information. Data input has been changed to metric tons instead of short tons to be more consistent with waste diversion input on Tab 9.1c. Historic Data has been updated to reflect that change.

Source: Site/Lab

Methodology

Y-12 does not operate the DOE Oak Ridge Reservation (ORR) Landfill. The ORR Landfill is operated under an Environmental Management contract by the East Tennessee Technology Park (ETTP) Contractor. The fugitive emissions from the total quantity of sanitary landfill waste received are reported by ETTP. Y-12 and the Oak Ridge National Laboratory (ORNL) do not report the fugitive emissions for the sanitary landfill waste to avoid duplicate reporting of fugitive emissions by ETTP, Y-12, and ORNL. This approach was agreed upon by personnel from DOE Headquarters, local DOE offices , and each respective site prior to establishing the 2008 baseline.

On-Site Landfill Information																						Notes	
PSO	Site #	Site	FY	Annual Mass of Solid Waste Disposed On-site (Metric Tons)	Annual Mass of Solid Waste Disposed On-site (Short Tons)	Landfill Open Date (Year)	Landfill Close Date (Year)	Carbon dioxide (biogenic) (MT Megagram)	Methane (MT Megagram)	Percentage Uncontrolled Release (CO2 Biogenic)		Percentage Uncontrolled Release (CH4)		Landfill Gas Collection System Efficiency (CH4)		Venting Loss (CH4)		Methotropic Bacteria Oxidation Factor (CH4)		Combustion Oxidation Factor (CO2 Biogenic)		Biogenic $MtCO_2e$	Anthropogenic $MtCO_2e$	Additional Information	SPO Notes
										Site	Default	Site	Default	Site	Default	Site	Default	Site	Default	Site	Default				
NNSA	146	Y12	2012	0.0	0.0						100%		50%		75%		1%		10%		99%	-	-	On-site Landfill MSW data is reported by ETTP per	
NNSA	146	Y12	2011	0.0	0.0						100%		50%		75%		1%		10%		99%	-	-	On-site Landfill MSW data is reported by ETTP per	
NNSA	146	Y12	2008	0.0	0.0						100%		50%		75%		1%		10%		99%	-	-	Data is included in ETTP report	
NNSA	146	Y12	2010	0.0	0.0						100%		50%		75%		1%		10%		99%	-	-	Data is included in ETTP report	
NNSA	146	Y12	2013	0.0	0.0						100%		50%		75%		1%		10%		99%	-	-	Note: Of the values reported by the ETTP prime contactor: 1,206.3 Metric tons of MSW and 1,466.6 metric tons C/D Waste values would be attributed to waste sent to the landfill from operations located at Y-12.	SPO Request: Please provide comment on amount of waste sent to ETTP landfill.

Fugitive Emissions: Contracted/Off-site Landfills and Municipal Solid Waste Facilities (Domestic Only)

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): DOE O 436.1, E.O. 13514

Instructions: This is a required tab for FY 2013 GHG estimates of off-site landfill/municipal solid waste emissions and GHG goal performance. Sites may elect to provide a short description of the methodology used for gathering this information. Sites which send their waste to a DOE-owned landfill should report zero waste in this tab, and note the waste amount transfered to that site in the "Additional Comments" column. Data input has been changed to metric tons instead of short tons to be more consistent with waste diversion input on Tab 9.1c. Historic data has been updated to reflect that change.

Source: Site/Lab

Methodology

Y-12 does not dispose of sanitary landfill waste in off-site landfills.

Contracted/Off-Site Landfill Information																												Notes	
PSO	Site #	Site	FY	Annual Mass of Solid Waste Disposed Off-site (Metric Tons)	Annual Mass of Solid Waste Disposed Off-site (Short Tons)	Degradable Organic Carbon (Megagram C/ Megagram Waste)		DOC Anaerobic Digestibility (%)		Methane Correction Factor	Methane % of Landfill Gas (%)		Methane Molecular Weight Conversion	Carbon Dioxide Molecular Weight Conversion	Carbon dioxide (biogenic) (MT Megagram)	Methane (MT Megagram)	Percentage Uncontrolled Release (CO2 Biogenic)		Percentage Uncontrolled Release (CH4)		Landfill Gas Collection System Efficiency (CH4)		Venting Loss (CH4)		Methotropic Bacteria Oxidation Factor (CH4)		Combustion Oxidation Factor (CO2 Biogenic)		Biogenic $MtCO_2e$	Anthropogenic $MtCO_2e$	Additional Information	SPO Notes
						Site	Default	Site	Default		Site	Default					Site	Default	Site	Default	Site	Default	Site	Default	Site	Default	Site	Default				
NNSA	146	Y12			-		0.203		50.0%	1.0		50.0%	1.333	3.667	-	-		100.0%		50.0%		75.0%		1.0%		10.0%		99.0%	-	-		

Diversion of Municipal Solid Waste and Construction & Demolition Debris

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): E.O. 13514

Instructions: FY 2013 data on municipal solid waste (MSW) sent to a landfill should be entered in Tabs 9.1a and 9.1b, and will then be automatically imported to this tab in columns E and F. Please complete those tabs before entering FY 2013 data on MSW diversion in columns G through J, and construction and demolition diversion data in columns L and M. FY 2012 data has been included as an example of the updated format. The MSW diversion rate calculated on this tab may not be complete if multiple sub-sites are used: i.e. if Tabs 9.1a, 9.1b, and 9.1c do not all utilize the same Site Information (Columns B and C). This may occur for several sites which have reported separately in CEDR but aggregated data for PPTRS. Diversion rate will properly calculate for all data on Tab 1.2 Performance Summary.

Source: Site/Lab

Methodology

The quantities of waste diverted include the quantities of materialseligible for landfill disposal that were diverted from the landfill through reuse or recycling. The diverted quantities do not include items that are ineligible for landfill disposal such as universal wastes and used oil.

Site				MSW Diversion							C&D Diversion			Notes	
PSO	Site #	Site	FY	Mass of Solid Waste Disposed On-site (Metric Tons)	Mass of Solid Waste Disposed Off-site (Metric Tons)	Diverted Waste (Metric Tons)	Off-Site Composting (Metric Tons)	On-site Composting (Metric Tons)	Waste to Energy (Metric Tons)	MSW Diversion Rate	Landfilled C&D Waste (Metric Tons)	Diverted C&D Waste (Metric Tons)	C&D Diversion Rate	Additional Information	SPO Comments
NNSA	146	Y12	2012	1676.8	0.0	1806.8	0.0	0.0	0.0	51.9%	2218.1	9587.0	81.2%		From PPTRS.
NNSA	146	Y12	2013	1206.3	0.0	1380.6	0.0	0.0	0.0	53.4%	1466.6	3674.1	71.5%	Note: Values for landfill	SPO Note: No data will popu

Fleet Fuel (FAST Data)

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Requirement(s): NECPA, EISA 2007, DOE O 436.1, E.O. 13514

Instructions: This is an optional tab for FY 2013 GHG estimates of fleet fuel and fleet fuel goal performance. If information for FY 2013 has been entered, select "Current FY" from the drop-down list in tab 1.2, Performance Summary, to have performance estimates based on latest data, otherwise leave as is.

Source: FAST

PSO	Site Num	Fleet Parent	Fleet Name	Report Year	Agency Group	EPAct-covered Agency	EO-covered Fuel	Fuel Group	Fuel Name	Fuel Type	Fuel State Abbreviation	Vehicle Exemption	Fuel Armored	Fuel Consumption (GGE)	Fuel Consumption (NU)	Fuel Natural Units	Fuel GGE Conversion Factor	Fuel Cost ($)	Diesel From B20	Anthropogenic $MtCO_2e$
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2000	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	NS	E/ER	No	7962	6942	gallons	1.147	8,608.000	No	73.66160398
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2000	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	NS	LE	No	1499	1307	gallons	1.147	1,620.000	No	13.86821708
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2000	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	NS	LE	No	23156	23156	gallons	1	28,225.000	No	205.1941236
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2000	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	NS	None	No	14371	12529	gallons	1.147	15,535.000	No	132.955402
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2000	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	NS	None	No	100610	100610	gallons	1	123,750.000	No	891.543478
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2001	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	NS	E/ER	No	9490	8274	gallons	1.147	11,584.000	No	87.79811879
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2001	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	NS	E/ER	No	2376	2376	gallons	1	3,041.000	No	21.05463974
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2001	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	NS	None	No	15035	13108	gallons	1.147	18,352.000	No	139.0984948
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2001	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	NS	None	No	110778	110778	gallons	1	142,766.000	No	981.6459935
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2002	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	NS	E/ER	No	10753	9375	gallons	1.147	10,031.000	No	99.48294745
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2002	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	NS	E/ER	No	2088	2088	gallons	1	5,399.000	No	18.50256219
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2002	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	NS	None	No	29625	25828	gallons	1.147	17,903.000	No	274.0800073
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2002	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	NS	None	No	389892	389892	gallons	1	122,137.000	No	3454.981311
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2003	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	None	No	29636	25838	gallons	1.147	70,909.000	No	274.1817754
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2003	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	135360	135360	gallons	1	321,648.000	No	1199.476446
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2003	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	3147	4371	gallons	0.72	6,823.000	No	4.202140491
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2003	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	LE	No	4547	3964	gallons	1.147	5,376.000	No	42.06723352
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2003	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	TN	LE	No	67758	67758	gallons	1	91,350.000	No	600.4294104
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2003	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	10927	10927	gallons	1	15,773.000	No	96.82830319
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2004	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	2417	3357	gallons	0.72	6,449.000	No	3.227382767
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2004	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	None	No	28852	25154	gallons	1.147	37,559.000	No	266.9284851
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2004	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	130949	130949	gallons	1	198,343.000	No	1160.388897
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2004	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	456	634	gallons	0.72	1,313.000	No	0.608889757
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2004	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	TN	LE	No	23580	23580	gallons	1	36,420.000	No	208.9513489
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2004	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	11123	11123	gallons	1	18,815.000	No	98.56513374
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2005	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	4801	6669	gallons	0.72	15,439.000	No	6.410701144
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2005	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	None	No	31072	27090	gallons	1.147	52,282.000	No	287.4671388
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2005	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	129245	129245	gallons	1	264,447.000	No	1145.289105
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2005	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	5899	8193	gallons	0.72	20,729.000	No	7.876843584
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2005	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	LE	No	1281	1117	gallons	1.147	2,434.000	No	11.85135829
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2005	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	LE	Yes	965	841	gallons	1.147	1,700.000	No	8.927838212
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2005	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	LE	No	67394	67394	gallons	1	149,096.000	No	597.203868
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2005	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	None	No	9	8	gallons	1.147	16.000	No	0.083264812
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2005	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	17136	17136	gallons	1	37,638.000	No	151.8486138
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2006	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	11170	15514	gallons	0.72	46,527.000	No	14.91512847
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2006	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	E/ER	No	1826	1592	gallons	1.147	3,945.000	No	16.89350526
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2006	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	TN	E/ER	No	306	306	gallons	1	727.000	No	2.71158239
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2006	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	None	No	28679	25003	gallons	1.147	67,633.000	No	265.3279503
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2006	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	97584	97584	gallons	1	236,388.000	No	864.7289411
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2006	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	5288	7344	gallons	0.72	17,925.000	No	7.060984722
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2006	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	LE	No	2179	1900	gallons	1.147	4,732.000	No	20.15933623
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2006	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	TN	LE	No	6257	6257	gallons	1	14,915.000	No	55.44565691
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2006	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	None	Yes	953	831	gallons	1.147	2,070.000	No	8.816818462
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2006	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	93074	93074	gallons	1	221,882.000	No	824.7641156
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2007	EPACT-Cove	Yes	No	Alternative	Bio-diesel	B20	TN	None	No	2811	2497	gallons	1.126	5,027.000	No	20.80912084
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2007	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	13169	18290	gallons	0.72	51,840.000	No	17.58436229
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2007	EPACT-Cove	Yes	No	Petroleum	Diesel	B20	TN	None	No	0	0	gallons	1.126	0.000	Exempt	0
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2007	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	E/ER	No	1723	1502	gallons	1.147	3,975.000	No	15.94058574
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2007	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	TN	E/ER	No	3039	3039	gallons	1	8,216.000	No	26.92973491
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2007	EPACT-Cove	Yes	Yes	Petroleum	Diesel	B20	TN	None	No	11245	9986	gallons	1.126	20,106.000	Covered	83.2438861
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2007	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	None	No	7110	6199	gallons	1.147	16,032.000	No	65.77920175
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2007	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	102472	102472	gallons	1	201,252.000	No	908.0433682
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2007	EPACT-Cove	Yes	No	Alternative	Bio-diesel	B20	TN	None	No	1057	939	gallons	1.126	2,967.000	No	7.824703211
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2007	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	5563	7727	gallons	0.72	21,867.000	No	7.428187974
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2007	EPACT-Cove	Yes	No	Petroleum	Diesel	B20	TN	None	No	4230	3756	gallons	1.126	11,869.000	Exempt	31.31361834
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2007	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	TN	LE	No	63675	63675	gallons	1	179,617.000	No	564.2483944
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2007	EPACT-Cove	Yes	Yes	Petroleum	Diesel	B20	TN	None	No	0	0	gallons	1.126	0.000	Covered	0
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2007	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	19450	19450	gallons	1	54,717.000	No	172.353848
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2008	EPACT-Cove	Yes	No	Alternative	Bio-diesel	B20	TN	None	No	5010	4449	gallons	1.126	14,824.000	No	37.08776073

PSO	Site Num	Fleet Parent	Fleet Name	Report Year	Agency Group	EPAct-covered Agency	EO-covered Fuel	Fuel Group	Fuel Name	Fuel Type	Fuel State Abbreviation	Vehicle Exemption	Fuel Armored	Fuel Consumption (GGE)	Fuel Consumption (NU)	Fuel Natural Units	Fuel GGE Conversion Factor	Fuel Cost ($)	Diesel From B20	Anthropogenic $MtCO_2e$
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2008	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	13902	19309	gallons	0.72	64,026.000	No	18.56312587
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2008	EPACT-Cove	Yes	No	Petroleum	Diesel	B20	TN	None	No	0	0	gallons	1.126	0.000	Exempt	0
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2008	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	E/ER	No	2010	1752	gallons	1.147	6,178.000	No	18.59580809
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2008	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	TN	E/ER	No	3383	3383	gallons	1	10,163.000	No	29.97804976
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2008	EPACT-Cove	Yes	Yes	Petroleum	Diesel	B20	TN	None	No	20040	17798	gallons	1.126	59,297.000	Covered	148.3510429
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2008	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	74193	74193	gallons	1	232,335.000	No	657.452393
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2008	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	7757	10774	gallons	0.72	37,278.000	No	10.35780229
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2008	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	LE	No	6292	5486	gallons	1.147	23,702.000	No	58.21135547
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2008	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	TN	LE	No	57001	57001	gallons	1	208,624.000	No	505.1075419
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2008	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	21584	21584	gallons	1	89,904.000	No	191.2640337
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2009	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	19693	27352	gallons	0.72	37,246.000	No	26.29575872
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2009	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	E/ER	No	2174	1895	gallons	1.147	2,887.000	No	20.113078
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2009	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	TN	E/ER	No	2614	2614	gallons	1	3,139.000	No	23.16364826
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2009	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	None	No	6088	5307	gallons	1.147	10,854.000	No	56.32401972
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2009	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	71465	71465	gallons	1	141,560.000	No	633.2785474
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2009	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	8075	11215	gallons	0.72	29,270.000	No	10.78242277
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2009	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	LE	No	5369	4681	gallons	1.147	10,672.000	No	49.67208638
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2009	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	TN	LE	No	48818	48818	gallons	1	102,518.000	No	432.5948664
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2009	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	19383	19383	gallons	1	40,714.000	No	171.7601355
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2010	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	44988	62483	gallons	0.720	158364	No	60.07178152
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2010	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	None	No	28920	25213	gallons	1.147	80177	No	267.557597
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2010	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	75262	75262	gallons	1.000	222022	No	666.9252087
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2010	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	LE	No	23467	32593	gallons	0.720	88326	No	31.33512263
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2010	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	2425	3368	gallons	0.720	9128	No	3.238065043
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2010	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	LE	No	39098	34087	gallons	1.147	89052	No	361.7208481
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2010	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	TN	LE	No	23124	23124	gallons	1.000	60353	No	204.9105594
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2010	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	15179	15179	gallons	1.000	39403	No	134.5068925
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2011	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	21236	29496	gallons	0.720	92617	No	28.35610279
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2011	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	None	No	22677	19772	gallons	1.147	65840	No	209.7995722
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2011	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	60251	60251	gallons	1.000	188585	No	533.9070281
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2011	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	LE	No	11465	15924	gallons	0.720	59237	No	15.30903741
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2011	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	1063	1477	gallons	0.720	5495	No	1.419407481
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2011	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	LE	No	1528	1332	gallons	1.147	5689	No	14.13651481
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2011	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	LE	Yes	33820	29486	gallons	1.147	100139	No	312.8906615
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2011	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	TN	LE	No	40264	40264	gallons	1.000	164279	No	356.7946188
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2011	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	18552	18552	gallons	1.000	75301	No	164.3963284
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2012	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	26613	36964	gallons	0.72	134,689.000	No	35.53592784
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2012	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	None	No	17591	15338	gallons	1.147	36,914.000	No	162.7457015
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2012	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	40325	40325	gallons	1.00	134,749.000	No	357.335163
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2012	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	LE	No	28440	39500	gallons	0.72	123,240.000	No	37.97549272
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2012	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	3132	4351	gallons	0.72	13,575.000	No	4.182111223
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2012	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	LE	No	711	620	gallons	1.15	2,232.000	No	6.577920175
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2012	EPACT-Cove	Yes	No	Petroleum	Gasoline	GAS	TN	LE	No	16875	16875	gallons	1.00	57,544.000	No	149.5357936
NNSA	146	Oak Ridge Offic	Wackenhut Services, Inc. (NNSA)	2012	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	11860	11860	gallons	1.00	40,442.000	No	105.0959711
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2013	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	None	No	23156	16672	gallons	0.72	69976	No	30.91984913
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2013	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	None	No	21871	25086	gallons	1.15	70798	No	202.3427456
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2013	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	None	No	67434	67434	gallons	1.00	205227	No	597.5583232
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2013	EPACT-Cove	Yes	No	Alternative	E-85	E85	TN	LE	No	17021	12255	gallons	0.72	63846	No	22.72787839
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2013	EPACT-Cove	Yes	Yes	Petroleum	Diesel	DSL	TN	LE	No	756	867	gallons	1.15	2410	No	6.994244236
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2013	EPACT-Cove	Yes	Yes	Petroleum	Gasoline	GAS	TN	LE	No	20515	20515	gallons	1.00	77084	No	181.7912181
NNSA	146	Oak Ridge Offic	BWXT - Y-12	2013	EPACT-Cove	Yes	No	Petroleum	Diesel	DSL	TN	LE	Yes	12926	14826	gallons	1.15	47253	No	119.5867738

EISA Section 432 - Compliance Path

Requirement(s): EISA 2007, DOE O 436.1

Instructions: Please strategize and plan for your 4-year period by updating the FIMS list below and identifying covered facilities, estimating energy consumption, providing anticipated evaluation year and type/level including re-/retro-commissioning and benchmarking status. Sites will be provided the option to update or use information provided in December for their EISA Section 432 June snapshot reporting.

Source: Site/Lab and FIMS

Key:	
Light Green	Pre-populated data by SPO to be reviewed and updated with changes highlighted in blue.
Orange	Fields that need to reviewed and updated with changes highlighted in blue.
Yellow	Optional data field to be completed, if applicable and available.
Red	Calculated fields. No action required.

Strategy		

FIMS Facility Information - *No Action/Informational Only*																			Covered Facility Information - *Optional to Update*								Notes	
Site Name	Site	Area	Seq No	Prop ID	Prop Name	Excl Part	Prop Type	GSFT	EC Bldg Fac	EC Metered	Justification	EMS Site	PSO	Lead PSO	Ownership	Outgrant Ind	Status	Est Disposition Yr	Location City	Location State	Covered or Not Covered?	Estimated Total Energy Used (10^6 x Btu/Yr)	Estimated Total Water Used (10^3 x Gal/Yr)	Anticipated or Actual Energy Evaluation Date (MM/YY)	Anticipated or Actual Water Evaluation Date (MM/YY)	Anticipated or Actual Evaluation Type/Level	Retro/Re-Commissioning Assessment	Benchmarking Status	Benchmarking System	Additional Information	SPO Review/Requests
Y-12 Site Offic	21002	1	208391	1418	East Potable Water Tank		S	2,000,000	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Covered	16,275.720	0.000					In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	208392	1419	West Potable Water Tank		S	2,000,000	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1,706.000	0.000								
Y-12 Site Offic	21002	1	98379	9201-05	Production		B	613,642	613,642	-		146	SC	NNSA	O	N	Deactivation	2018	Oak Ridge	TN	Not Covered	10,468.730	86,139.000								
Y-12 Site Offic	21002	3	98378	9201-04	Environmental Management (Alpha-4)		B	510,218	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2014	Oak Ridge	TN	Not Covered	3,011.470	71,621.000								
Y-12 Site Offic	21002	1	98395	9212	Production		B	442,317	442,317	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Covered	239,140.140	62,090.000	07/12	07/12	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	204358	301 BCR	Jack Case Office Building		B	411,837	411,837	-		146	NNSA	NNSA	C	N	Operating	2050	Oak Ridge	TN	Covered	35,007.120	57,811.000	10/11	10/11	ASHRAE Level 2	Yes	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	2	98376	9201-02	Fusion Energy Building		B	324,448	324,448	-		146	NNSA	NNSA	O	N	Operating Pendin	2014	Oak Ridge	TN	Not Covered	1,078.700	45,544.000								
Y-12 Site Offic	21002	1	98385	9204-02	Production		B	324,085	324,085	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Covered	199,684.190	45,493.000	03/12	03/12	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98387	9204-04	Production		B	313,771	313,771	-		146	NNSA	NNSA	O	N	Deactivation	2018	Oak Ridge	TN	Not Covered	6,295.140	44,045.000								
	21002	1	142146	742-000	Elza Switch Yard		S	300,000	0	0		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	-	38,039								
Y-12 Site Offic	21002	1	98375	9201-01	Production		B	270,988	270,988	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Covered	24,663.060	36,028.000	04/12	04/12	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
	21002	2	98391	9207	Biology		B	256,660	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	-	35,887								
Y-12 Site Offic	21002	4	98386	9204-03	Isotope Separations		B	255,656	255,656	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2050	Oak Ridge	TN	Not Covered	7,815.560	29,547.000					In Progress	Portfolio Manager		
Y-12 Site Offic	21002	2	98384	9204-01	Fusion Energy-Eng Tech		B	210,491	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	718.200	26,949.000								
Y-12 Site Offic	21002	1	98377	9201-03	Maintenance Facility		B	191,978	191,978	-		146	NNSA	NNSA	O	N	Operating	2031	Oak Ridge	TN	Covered	12,744.650	26,493.000	05/11	05/11	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98397	9215	Production		B	188,729	188,729	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Covered	203,358.360	24,269.000	01/12	01/12	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98388	9204-02E	Production		B	172,892	172,892	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Covered	23,378.200	22,071.000	07/12	07/12	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98381	9202	Labs. & Offices		B	157,228	157,228	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	3,644.020	21,477.000	08/13	08/13	ASHRAE Level 2	Not Applicable				
Y-12 Site Offic	21002	1	207178	9720-82	Storage Building		B	153,001	153,001	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Covered	15,050.970	21,356.000	08/12	08/12	ASHRAE Level 2	Yes	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98803	9998	Production		B	152,134	152,134	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Covered	43,222.100	19,338.000	02/12	02/12	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	204359	602 SCA	New Hope Center		B	137,758	137,758	-		146	NNSA	NNSA	C	N	Operating	2050	Oak Ridge	TN	Covered	13,938.020	15,476.000	10/11	10/11		Yes	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98357	9103	Central Computing Facility		B	110,248	110,248	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	8,463.740	13,759.000	05/13	05/13	ASHRAE Level 2	Not Applicable				
Y-12 Site Offic	21002	1	98621	9737	Laboratory/Office		B	98,017	98,017	-		146	SC	NNSA	O	N	Operating	2050	Oak Ridge	TN	Covered	11,010.520	11,462.000	09/12	09/12	ASHRAE Level 2	Yes	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98801	9995	Plant Laboratory		B	81,655	81,655	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Covered	23,216.940	10,956.000	01/12	01/12	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98380	9201-05N	Production		B	78,049	78,049	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Covered	15,695.200	10,301.000	05/12	05/12	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98374	9119	Office Building		B	73,381	73,381	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	3,326.700	9,827.000	03/13	03/13	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	133777	9201-05W	Machine Shop		B	70,005	70,005	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Covered	13,393.120	9,752.000	06/12	06/12	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98538	9720-05	Warehouse		B	69,474	69,474	-		146	NNSA	NNSA	O	N	Operating	2032	Knoxville	TN	Not Covered	1,801.540	9,124.000								
	21002	2	98393	9210	Mammalian Genetics		B	64,737	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	-	9,087								
Y-12 Site Offic	21002	1	98407	9401-03	Old Coal Fired Steam Plant		B	62,124	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2015	Oak Ridge	TN	Not Covered	211.970	8,721.000								
Y-12 Site Offic	21002	1	98369	9113	Office Building		B	59,299	59,299	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	3,034.920	8,324.000	03/13	03/13	ASHRAE Level 2	Not Applicable				
Y-12 Site Offic	21002	1	98390	9206	Production		B	57,812	57,812	-		146	NNSA	NNSA	O	N	Deactivation	2018	Oak Ridge	TN	Not Covered	6,930.660	8,115.000								
Y-12 Site Offic	21002	1	98529	9710-03	Guard Headquarters		B	41,496	41,496	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1,840.600	5,825.000	04/13	04/13	ASHRAE Level 2	Not Applicable				
Y-12 Site Offic	21002	1	98562	9720-33	Storage		B	40,186	40,186	-		146	NNSA	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	411.340	5,641.000								
Y-12 Site Offic	21002	1	125772	9624	Environmental Support Facility		B	37,372	37,372	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1,657.670	5,246.000								
Y-12 Site Offic	21002	1	98610	9731	Offices & Labs.		B	37,159	37,159	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	633.930	5,216.000								
Y-12 Site Offic	21002	1	98370	9114	Office Building		B	36,901	36,901	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	2,439.140	5,180.000	03/13	03/13	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98802	9996	DU Binary		B	34,233	34,233	-		146	NE	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	9,733.460	4,805.000								
Y-12 Site Offic	21002	1	98561	9720-32	Non-Destructive Assay		B	32,790	32,790	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	335.480	4,500.000								
Y-12 Site Offic	21002	1	98382	9203	Labs. & Offices		B	31,107	31,107	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	1,379.780	4,367.000	08/13	08/13	ASHRAE Level 2	Not Applicable				
Y-12 Site Offic	21002	1	98528	9710-02	Fire Hall		B	27,673	27,673	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	1,321.880	4,304.000								
Y-12 Site Offic	21002	1	98600	9723-31	Changehouse		B	27,532	27,532	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1,221.210	4,043.000	11/13	11/13	ASHRAE Level 2	Not Applicable				
Y-12 Site Offic	21002	1	98525	9706-02	Shift Superintendent		B	27,475	27,475	-		146	NNSA	NNSA	O	N	Operating	2020	Oak Ridge	TN	Not Covered	1,312.430	3,885.000								
Y-12 Site Offic	21002	1	98471	9420	Shops		B	27,341	27,341	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	186.570	3,865.000								
Y-12 Site Offic	21002	1	98504	9616-07	WEST END TREATMENT FACILITY		B	26,054	26,054	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	3,022.470	3,857.000								
Y-12 Site Offic	21002	3	98396	9213	Development/Offices		B	23,635	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2025	Oak Ridge	TN	Not Covered	80.640	3,838.000								
Y-12 Site Offic	21002	1	98642	9767-13	Chiller Building		B	20,724	20,724	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Covered	82,954.350	3,657.000	04/11	04/11	ASHRAE Level 2	Yes	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98373	9117	Central Computing Facility		B	19,648	19,648	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1,508.380	3,451.000								
Y-12 Site Offic	21002	1	98511	9623	Central Pollution Control Fac.		B	19,534	19,534	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	721.230	3,318.000								
Y-12 Site Offic	21002	1	207482	9401-07	Steam Plant		B	19,200	19,200	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Covered	756,375.690	2,909.000	07/11	07/11	ASHRAE Level 2	Yes	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98596	9723-25	Changehouse/Offices		B	18,974	18,974	-		146	SC	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	5,394.870	2,758.000								
Y-12 Site Offic	21002	1	98697	9831	Storage Building		B	18,669	18,669	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	191.100	2,742.000								
Y-12 Site Offic	21002	5	206336	K-1654-FF	Tactical Training Facility		B	18,524	18,524	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	821.650	2,695.000								
Y-12 Site Offic	21002	5	204588	K-1654-AA	20 Point Indoor Firearms Facility		B	18,256	18,256	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	8,097.450	2,663.000					In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98555	9720-25	Waste Storage Warehouse		B	17,315	17,315	-		146	NNSA	NNSA	O	N	Operating	2037	Oak Ridge	TN	Not Covered	177.240	2,621.000								
Y-12 Site Offic	21002	1	98371	9115	Office Building		B	16,415	16,415	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	840.120	2,590.000	03/13	03/13	ASHRAE Level 2	Not Applicable				
Y-12 Site Offic	21002	1	98372	9116	Office Building		B	16,415	16,415	-		146	SC	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	840.120	2,431.000	03/13	03/13	ASHRAE Level 2	Not Applicable				
Y-12 Site Offic	21002	1	98547	9720-16	Maintenance Storage		B	16,319	16,319	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	111.360	2,304.000								
Y-12 Site Offic	21002	1	98362	9106	Offices		B	16,272	16,272	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	793.770	2,304.000								
Y-12 Site Offic	21002	1	98383	9203A	Labs. & Offices		B	13,881	13,881	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	615.710	2,291.000								
Y-12 Site Offic	21002	3	98578	9720-60	Solid Storage Facility		B	13,780	13,780	-		146	NNSA	NNSA	O	N	Operating	2031	Oak Ridge	TN	Not Covered	141.050	2,245.000								
Y-12 Site Offic	21002	1	98367	9111	Office-Engineering		B	13,717	13,717	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	445.470	1,949.000								
Y-12 Site Offic	21002	3	98404	9401-02	Plating Shop & Maint.		B	13,673	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	46.650	1,934.000								
Y-12 Site Offic	21002	1	98556	9720-26	Mercury Storage		B	13,578	13,578	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	138.980	1,926.000								
Y-12 Site Offic	21002	2	98403	9401-01	Maintenance/Recycle Storage		B	13,454	13,454	-		146	NNSA	NNSA	O	N	Operating Pendin	2016	Oak Ridge	TN	Not Covered	229.530	1,919.000	02/13	02/13	ASHRAE Level 2					
Y-12 Site Offic	21002	1	202699	9733-05	Office Building		B	13,322	13,322	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	681.820	1,906.000								
Y-12 Site Offic	21002	1	98520	9703-15	Storage, Fabrication & Offices		B	13,050	13,050	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	578.850	1,889.000								
Y-12 Site Offic	21002	1	98553	9720-22	Storage		B	12,712	12,712	-		146	NNSA	NNSA	O	N	Operating Pendin	2014	Oak Ridge	TN	Not Covered	130.120	1,870.000								
Y-12 Site Offic	21002	1	98590	9723-14	Offices		B	12,532	12,532	-		146	NNSA	NNSA	O	N	Operating	2031	Oak Ridge	TN	Not Covered	641.390	1,832.000								
Y-12 Site Offic	21002	1	98542	9720-09	Waste Storage Warehouse		B	12,035	12,035	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	123.190	1,784.000								
Y-12 Site Offic	21002	1	98639	9767-10	Chiller Building		B	12,000	12,000	-		146	NNSA	NNSA	O	N	Operating	2037	Oak Ridge	TN	Covered	28,551.890	1,759.000	03/11	03/11	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	129590	9720-59	Storage		B	11,831	11,831	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	121.100	1,689.000								
Y-12 Site Offic	21002	1	98368	9112	Office-Engineering		B	11,804	11,804	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	445.470	1,684.000								
Y-12 Site Offic	21002	1	98598	9723-27	Changehouse		B	11,670	11,670	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	517.630	1,661.000	11/13	11/13	ASHRAE Level 2	Not Applicable				
Y-12 Site Offic	21002	1	98363	9107	Office Building		B	11,632	11,632	-		146	NNSA	NNSA	O	N	Operating	2014	Oak Ridge	TN	Not Covered	372.620	1,657.000								
Y-12 Site Offic	21002	1	98554	9720-24	Classified Tool Storage		B	11,192	11,192	-		146	NNSA	NNSA	O	N	Operating Pendin	2021	Oak Ridge	TN	Not Covered	114.560	1,638.000								
Y-12 Site Offic	21002	1	98544	9720-13	Y-12 Stores Warehouse		B	11,000	11,000	-		146	NNSA	NNSA	O	N	Operating	2016	Oak Ridge	TN	Not Covered	750.640	1,633.000								
Y-12 Site Offic	21002	1	98601	9723-33	Changehouse		B	10,771	10,771	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	477.760	1,571.000	11/13	11/13	ASHRAE Level 2	Not Applicable				

Site Name	Site	Area	Seq No	Prop ID	Prop Name	Excl Part	Prop Type	GSFT	EC Bldg Fac	EC Metered	Justification	EMS Site	PSO	Lead PSO	Ownership	Outgrant Ind	Status	Est Disposition Yr	Location City	Location State	Covered or Not Covered?	Estimated Total Energy Used (10^6 x Btu/Yr)	Estimated Total Water Used (10^3 x Gal/Yr)	Anticipated or Actual Energy Evaluation Date (MM/YY)	Anticipated or Actual Water Evaluation Date (MM/YY)	Anticipated or Actual Evaluation Type/Level	Retro/Re-Commissioning Assessment	Benchmarking Status	Benchmarking System	Additional Information	SPO Review/Requests
Y-12 Site Offic	21002	1	98599	9723-28	Changehouse		B	10,252	10,252	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	454.740	1,544.000	11/13	11/13	ASHRAE Level 2	Not Applicable				
Y-12 Site Offic	21002	1	98365	9109	Office		B	9,788	9,788	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	480.410	1,512.000					In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98521	9703-16	Construction Support		B	9,614	9,614	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	492.040	1,475.000								
Y-12 Site Offic	21002	1	203813	9720-94	Record Storage Facility		B	9,437	9,437	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	161.000	1,439.000								
Y-12 Site Offic	21002	1	203464	2005	2005 Heavy Equipment Shop		B	9,401	9,401	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	160.380	1,374.000								
Y-12 Site Offic	21002	1	140466	9811-12	Transformer Oil Facility		B	9,339	9,339	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	95.590	1,350.000								
Y-12 Site Offic	21002	1	202393	9225-03	Production		B	9,260	9,260	-		146	EM	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1,074.230	1,325.000								
Y-12 Site Offic	21002	1	98255	9409-13	Cooling Tower, 9767-13		S	9,100	8,387	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1,501.280	1,320.000								
Y-12 Site Offic	21002	1	98625	9744	Utilities		B	9,081	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2014	Oak Ridge	TN	Not Covered	30.980	1,311.000								
Y-12 Site Offic	21002	1	134124	9830-03	Storage Pad Facility - RUBB		B	8,750	8,750	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	89.570	1,308.000								
Y-12 Site Offic	21002	1	134125	9830-04	Storage Pad Facility - RUBB		B	8,750	8,750	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	89.570	1,300.000								
Y-12 Site Offic	21002	1	134126	9830-05	Storage Pad Facility - RUBB		B	8,750	8,750	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	89.570	1,275.000								
Y-12 Site Offic	21002	1	134127	9830-06	Storage Pad Facility - RUBB		B	8,750	8,750	-		146	SC	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	89.570	1,228.000								
Y-12 Site Offic	21002	1	134123	9830-02	Storage Pad Facility-RUBB		B	8,707	8,707	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	89.120	1,228.000								
Y-12 Site Offic	21002	1	134128	9830-07	Storage Pad Facility - RUBB		B	8,707	8,707	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	89.120	1,228.000								
Y-12 Site Offic	21002	1	203811	9712-01N	North Garage Bay		B	8,700	8,700	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	466.140	1,228.000								
Y-12 Site Offic	21002	2	97633	XF1301	Barn D		B	8,650	8,650	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	88.540	1,222.000								
Y-12 Site Offic	21002	1	98366	9110	Office		B	8,634	8,634	-		146	SC	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	8,816.830	1,222.000								
Y-12 Site Offic	21002	1	201424	9712-01	Garage Facility		B	8,391	8,391	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	208.340	1,214.000								
Y-12 Site Offic	21002	1	98567	9720-39	Laundry		B	8,193	8,193	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	90.690	1,212.000								
	21002	2	200803	9207A	9207 Annex		B	8,108	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	-	1,150								
Y-12 Site Offic	21002	1	98361	9105	Fusion Eng Office Bldg		B	7,667	7,667	-		146	SC	NNSA	O	Y	Operating	2022	Oak Ridge	TN	Not Covered	392.400	1,138.000								
Y-12 Site Offic	21002	1	98672	9818	Acid Waste Neutralization		B	7,561	7,561	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	51.600	1,076.000								
Y-12 Site Offic	21002	1	98364	9108	Office Building		B	7,544	7,544	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	360.310	1,061.000					In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98660	9808	Maintenance		B	7,540	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2014	Oak Ridge	TN	Not Covered	25.730	1,059.000								
Y-12 Site Offic	21002	1	203812	9712-01S	South Garage Bay		B	7,426	7,426	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	413.350	1,058.000								
Y-12 Site Offic	21002	1	98400	9219	Laborers Shop		B	7,370	7,370	-		146	SC	NNSA	O	N	Operating	2021	Oak Ridge	TN	Not Covered	352.050	1,035.000								
Y-12 Site Offic	21002	1	98634	9767-04	Chiller Building		B	6,893	6,893	-		146	NNSA	NNSA	O	N	Operating	2040	Oak Ridge	TN	Covered	39,754.150	968.000	03/11	03/11	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	200821	9723-34	Changehouse		B	6,700	6,700	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	297.190	941.000	11/13	11/13	ASHRAE Level 2	Not Applicable				
Y-12 Site Offic	21002	1	98560	9720-31	RCRA Waste Storage Warehouse		B	6,611	6,611	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	67.670	928.000								
Y-12 Site Offic	21002	1	133778	9201-01W	Assembly Facility		B	6,499	6,499	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	753.940	912.000								
Y-12 Site Offic	21002	1	98605	9725	Mach. Tool Storage		B	6,435	6,435	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	43.910	903.000								
Y-12 Site Offic	21002	1	98493	9423	Material Stor. Warehouse		B	6,263	6,263	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	106.850	879.000								
Y-12 Site Offic	21002	1	98249	9409-22E	Cooling Tower, 9212		S	6,000	4,519	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	1,501.280	816.000								
Y-12 Site Offic	21002	1	98421	9404-05	Paint Shop		B	5,813	5,813	-		146	NNSA	NNSA	O	N	Operating	2022	Oak Ridge	TN	Not Covered	39.670	814.000								
Y-12 Site Offic	21002	1	98659	9805-01	Gas House		B	5,800	5,800	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	39.580	725.000								
Y-12 Site Offic	21002	5	208070	K-1654-DD	CTF Staff Offices		B	5,250	5,250	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	268.700	711.000								
Y-12 Site Offic	21002	1	98551	9720-20	Maint. Shops & Offices		B	5,164	5,164	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	35.240	711.000								
Y-12 Site Offic	21002	1	98546	9720-15	Paint Shop		B	5,065	5,065	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	34.560	708.000								
Y-12 Site Offic	21002	1	133808	9720-73	Construction Storage		B	5,062	5,062	-		146	NNSA	NNSA	O	N	Operating	2031	Oak Ridge	TN	Not Covered	51.810	698.000								
Y-12 Site Offic	21002	1	98472	9420-01	Sprinkler fitter shop		B	5,042	5,042	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	34.410	697.000								
Y-12 Site Offic	21002	1	98269	9409-02	Cooling Tower, 9201-01		S	5,000	-	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	1,501.280	690.000								
Y-12 Site Offic	21002	1	98749	9981	Process Building		B	4,972	4,972	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	576.790	685.000								
Y-12 Site Offic	21002	3	136058	9616-11	Office Building, Landfill V		B	4,968	4,968	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	254.260	680.000								
Y-12 Site Offic	21002	1	133792	9811-01	Storage		B	4,917	4,917	-		146	EM	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	50.330	668.000								
Y-12 Site Offic	21002	1	98640	9767-11	Chiller Building		B	4,880	4,880	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Covered	16,162.510	659.000	09/12	09/12	ASHRAE Level 2	Yes	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98637	9767-08	Chiller Building		B	4,847	4,847	-		146	NNSA	NNSA	O	N	Operating	2022	Oak Ridge	TN	Not Covered	8,231.190	640.000					In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98415	9404-18	Former Demineralizer Facility		B	4,760	-	-		146	SC	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	16.240	626.000								
Y-12 Site Offic	21002	5	200867	K-1654-LL	Comp Lab/ Library/Offices		B	4,719	4,719	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	241.520	612.000								
Y-12 Site Offic	21002	1	133800	741-000	Elza Control Building (1501)		B	4,558	4,558	-		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	528.760	606.000								
	21002	1	98799	9990-03	Coal Sampling Bldg.		B	4,463	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	-	596								
Y-12 Site Offic	21002	1	98748	9980	Process Building		B	4,361	4,361	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	505.910	573.000								
Y-12 Site Offic	21002	1	98548	9720-17	Warehouse/Industrial		B	4,314	4,314	-		146	NNSA	NNSA	O	N	Operating Pendin	2016	Oak Ridge	TN	Not Covered	44.160	569.000								
Y-12 Site Offic	21002	5	136770	K-1654-D	CTF Range Office		B	4,250	4,250	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	217.520	551.000								
Y-12 Site Offic	21002	1	133786	9720-58	Recycle Facility		B	4,243	4,243	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	43.430	533.000								
Y-12 Site Offic	21002	5	136743	K-1654-A	Virtual Training Center CTF		B	4,224	4,224	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	187.360	527.000								
Y-12 Site Offic	21002	3	140516	9983-GV	EMWMF OFFICE COMPLEX		T	4,200	4,200	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	214.960	510.000								
Y-12 Site Offic	21002	1	140368	2001	2001 R&G Maintenance Facility		B	4,082	4,082	-		146	NNSA	NNSA	O	N	Operational Stan	2039	Oak Ridge	TN	Not Covered	27.860	477.000								
Y-12 Site Offic	21002	1	98425	9404-09	Rubber Shop		B	4,057	4,057	-		146	NNSA	NNSA	O	N	Operating	2020	Oak Ridge	TN	Not Covered	470.640	474.000								
Y-12 Site Offic	21002	1	98406	9401-05	Production Support Facility		B	3,922	3,922	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	454.980	472.000								
Y-12 Site Offic	21002	1	98577	9720-53	Maintenance-Storage		S	3,800	3,800	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	38.900	465.000								
Y-12 Site Offic	21002	1	98405	9401-04	Waste Mat. Process Fac.		B	3,755	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	12.810	461.000								
Y-12 Site Offic	21002	1	98257	9409-10	Cooling Tower, 9204-02		S	3,700	2,400	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	1,501.280	434.000								
Y-12 Site Offic	21002	1	98558	9720-28	PCB Waste Storage Warehouse		B	3,635	3,635	-		146	NNSA	NNSA	O	N	Operating	2037	Oak Ridge	TN	Not Covered	37.210	425.000								
Y-12 Site Offic	21002	1	98506	9616-09	Steam Plant Wastewater Fac.		B	3,400	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	11.600	422.000								
Y-12 Site Offic	21002	1	98409	9404-10	Pumphouse, 9404-10		B	3,380	3,380	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Covered	13,839.070	418.000	04/11	04/11	ASHRAE Level 2	Yes	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98571	9720-47	Storage Shed		S	3,360	3,360	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	34.390	409.000								
Y-12 Site Offic	21002	1	98568	9720-41	Spill Response Storage		B	3,310	3,310	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	33.880	393.000								
Y-12 Site Offic	21002	1	98503	9616-06	Liquid Waste Facility		B	3,286	3,286	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	22.420	386.000								
Y-12 Site Offic	21002	1	98641	9767-12	Chiller Bldg., 9737		B	3,089	3,089	-		146	EM	NNSA	O	N	Operating	2050	Oak Ridge	TN	Covered	12,120.620	375.000	06/13	06/13	ASHRAE Level 2	Not Applicable	In Progress	Portfolio Manager		
Y-12 Site Offic	21002	1	98570	9720-46	Storage		B	3,026	-	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	30.970	368.000								
Y-12 Site Offic	21002	1	133797	9999-06	Electrical Switchgear Bldg.		B	3,008	3,008	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	348.950	355.000								
Y-12 Site Offic	21002	1	204614	1501-01	Old Elza Control Building		B	2,975	2,975	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	345.120	343.000								
Y-12 Site Offic	21002	1	98606	9727-03	Utilities		B	2,916	2,916	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	19.900	343.000								
Y-12 Site Offic	21002	1	98264	9409-22	Cooling Tower, 9212		S	2,800	1,829	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	1,501.280	333.000								
	21002	1	98745	9976	Utilities		B	2,797	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2014	Oak Ridge	TN	Not Covered	-	327								
Y-12 Site Offic	21002	1	98417	9404-20	Laborer Shack		B	2,751	2,751	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2022	Oak Ridge	TN	Not Covered	9.390	307.000								
Y-12 Site Offic	21002	2	98492	9422	Helium Compressor Bldg		B	2,671	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2017	Oak Ridge	TN	Not Covered	9.110	305.000								
Y-12 Site Offic	21002	1	98502	9616-05	Aux Storage		S	2,622	2,622	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	26.840	296.000								
Y-12 Site Offic	21002	1	98256	9409-24	Cooling Tower, 9212/9215		S	2,600	1,586	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	1,501.280	295.000								
Y-12 Site Offic	21002	1	127792	9409-26	Cooling Tower, 9215		S	2,500	3,904	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	1,501.280	285.000								
Y-12 Site Offic	21002	1	98613	9732-03	Maintenance Storage		B	2,447	2,447	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	25.050	261.000								
Y-12 Site Offic	21002	1	98805	9999-03	Demineralizer Facility		B	2,445	2,445	-		146	EM	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	181.090	246.000								
Y-12 Site Offic	21002	5	202466	K-1654-BB	Classrooms 3 and 4		B	2,400	2,400	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	122.830	246.000								
Y-12 Site Offic	21002	1	140518	9983-GX	EXERCISE FACILITY		T	2,400	2,400	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	122.830	242.000								
	21002	2	98624	9743-02	Pigeon Quarters		B	2,371	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	-	228								
Y-12 Site Offic	21002	5	202468	K-1654-CC	Lunchroom/Armory		B	2,356	2,356	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	16.080	226.000								
Y-12 Site Offic	21002	1	141262	9999-08	Switchgear Building		B	2,332	2,332	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	270.530	226.000								
Y-12 Site Offic	21002	3	134121	9720-45	Liquid Organic Waste Facility		S	2,190	2,190	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2030	Oak Ridge	TN	Not Covered	7.470	220.000								
Y-12 Site Offic	21002	1	203797	9711-01A	RAD Monitoring Building		B	2,173	2,173	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	111.210	217.000								
Y-12 Site Offic	21002	1	98789	9983-94	Industrial Hygiene Office		T	2,160	2,160	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	110.550	214.000								
Y-12 Site Offic	21002	3	140515	9983-GU	EMWMF CHANGEHOUSE		T	2,160	2,160	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	36.850	202.000								
Y-12 Site Offic	21002	1	98747	9977-01	Industrial Gas Facility		B	2,100	2,100	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	243.620	196.000								
Y-12 Site Offic	21002	2	97632	XF1302	Shed D Butler		B	2,028	2,028	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	20.760	191.000								

Site Name	Site	Area	Seq No	Prop ID	Prop Name	Excl Part	Prop Type	GSFT	EC Bldg Fac	EC Metered	Justification	EMS Site	PSO	Lead PSO	Ownership	Outgrant Ind	Status	Est Disposition Yr	Location City	Location State	Covered or Not Covered?	Estimated Total Energy Used (10^6 x Btu/Yr)	Estimated Total Water Used (10^3 x Gal/Yr)	Anticipated or Actual Energy Evaluation Date (MM/YY)	Anticipated or Actual Water Evaluation Date (MM/YY)	Anticipated or Actual Evaluation Type/Level	Retro/Re-Commissioning Assessment	Benchmarking Status	Benchmarking System	Additional Information	SPO Review/Requests
Y-12 Site Offic	21002	5	209947	K-1654-SS	Bulk Ammunition Storage		B	2,000	2,000	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	20.470	190.000								
Y-12 Site Offic	21002	1	98517	9702	Telephone Building		B	1,860	1,860	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	12.690	190.000								
Y-12 Site Offic	21002	5	208186	K-1654-MN	Maintenance Building		B	1,800	1,800	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	30.710	190.000								
Y-12 Site Offic	21002	1	98607	9727-04	Utilities		B	1,752	1,752	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	11.960	188.000								
Y-12 Site Offic	21002	1	142004	743-000	Oil Handling Facility		B	1,750	1,750	-		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	11.940	182.000								
Y-12 Site Offic	21002	1	98667	9815	Nitrate Facility		B	1,722	1,722	-		146	NNSA	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	11.750	178.000								
Y-12 Site Offic	21002	1	98658	9805	Special Materials Operations		S	1,623	1,623	-		146	SC	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	16.610	176.000								
	21002	3	98688	9825-01	Waste Storage		B	1,608	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2030	Oak Ridge	TN	Not Covered	-	174								
	21002	3	98689	9825-02	Waste Storage		B	1,608	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2030	Oak Ridge	TN	Not Covered	-	167								
Y-12 Site Offic	21002	1	98260	9409-23	Cooling Tower, 9212		S	1,600	3,454	-		146	EM	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	1,501.280	166.000								
	21002	3	125770	9809-01	Waste Storage		B	1,564	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2030	Oak Ridge	TN	Not Covered	-	158								
Y-12 Site Offic	21002	1	98663	9811-06	Dry Ash Handling Facility		B	1,546	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	5.270	156.000								
Y-12 Site Offic	21002	1	98413	9404-16	Utilities, 9404-16		B	1,526	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2014	Oak Ridge	TN	Not Covered	5.210	152.000								
Y-12 Site Offic	21002	1	142008	9500-05	Metal Canopy		S	1,500	1,500	-		146	NNSA	NNSA	O	N	Operating	2026	Oak Ridge	TN	Not Covered	10.240	147.000								
Y-12 Site Offic	21002	1	142009	9500-08	Metal Canopy		S	1,500	1,500	-		146	NNSA	NNSA	O	N	Operating	2026	Oak Ridge	TN	Not Covered	10.240	146.000								
Y-12 Site Offic	21002	1	142011	9500-15	Metal Canopy		S	1,500	1,500	-		146	NNSA	NNSA	O	N	Operating	2026	Oak Ridge	TN	Not Covered	10.240	137.000								
Y-12 Site Offic	21002	1	142013	9500-21	Metal Canopy		S	1,500	1,500	-		146	NNSA	NNSA	O	N	Operating	2026	Oak Ridge	TN	Not Covered	10.240	135.000								
Y-12 Site Offic	21002	1	98398	9217	Manufacturing		B	1,442	1,442	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	167.280	134.000								
Y-12 Site Offic	21002	5	141292	K-1654-EE	Tactical Training Classrooms CTF		B	1,440	1,440	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	73.700	117.000								
Y-12 Site Offic	21002	1	133774	9983-FS	Office Space		T	1,440	1,440	-		146	EM	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	73.700	116.000								
Y-12 Site Offic	21002	1	133764	9983-FG	Office Space		T	1,410	1,410	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1,115.180	112.000								
Y-12 Site Offic	21002	1	98266	9409-18	Cooling Tower, 9202		S	1,400	1,566	-		146	EM	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	1,092.290	111.000								
Y-12 Site Offic	21002	1	98414	9404-17	Pumphouse, 9404-17		B	1,395	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	4.760	106.000								
Y-12 Site Offic	21002	1	127349	9811-07	Ash Handling Facility		B	1,363	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	4.650	106.000								
Y-12 Site Offic	21002	1	205456	9720-95	Lineman's Storage		B	1,350	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	13.820	93.000								
Y-12 Site Offic	21002	1	205455	9720-96	Linemans Storage		B	1,350	-	-		146	EM	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	13.820	92.000								
Y-12 Site Offic	21002	1	205457	9720-97	Lineman's Storage		B	1,350	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	13.820	90.000								
Y-12 Site Offic	21002	1	133691	9983-88	Office Trailer (W9107)		T	1,344	1,344	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	68.790	89.000								
Y-12 Site Offic	21002	1	98512	9625	Storage Building		B	1,336	1,336	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	13.680	87.000								
Y-12 Site Offic	21002	1	133763	9983-FF	Office Space		T	1,307	1,307	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	745.760	80.000								
Y-12 Site Offic	21002	1	133762	9983-FE	Office Space		T	1,307	1,307	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	623.030	78.000								
	21002	1	133761	9983-FD	Office Space		T	1,307	1,307	0		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	-	75								
Y-12 Site Offic	21002	1	98557	9720-27	Reactive Metal Storage		B	1,299	1,299	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	13.300	67.000								
Y-12 Site Offic	21002	1	98399	9217-01	Filter House		B	1,267	1,267	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	146.980	64.000								
Y-12 Site Offic	21002	1	140371	2010	2010 Salt Storage Building		B	1,253	1,253	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	12.830	61.000								
Y-12 Site Offic	21002	1	98643	9768	Utilities		B	1,243	1,243	-		146	NNSA	NNSA	O	N	Operating	2022	Oak Ridge	TN	Not Covered	144.200	57.000								
Y-12 Site Offic	21002	1	141463	9720-83	Storage Shed		S	1,202	1,202	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	8.200	57.000								
Y-12 Site Offic	21002	1	139676	9409-24E	Cooling Tower, 9212/9215		S	1,200	751	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	1,501.280	56.000								
Y-12 Site Offic	21002	1	98664	9812	Tank Pit		B	1,190	1,190	-		146	NNSA	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	8.120	56.000								
Y-12 Site Offic	21002	1	98626	9752	Utilities		B	1,182	1,182	-		146	SC	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	8.070	55.000								
Y-12 Site Offic	21002	1	133815	9811-02	Tanker Transfer Station, Trident II		B	1,129	1,129	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	7.700	51.000								
Y-12 Site Offic	21002	1	133817	9811-04	Tanker Transfer Station, Trident II		B	1,112	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	3.790	50.000								
Y-12 Site Offic	21002	1	202681	9723-35	Conference Room		B	1,080	1,080	-		146	NNSA	NNSA	O	N	Operating	2014	Oak Ridge	TN	Not Covered	55.270	50.000								
Y-12 Site Offic	21002	1	133816	9811-03	Tanker Transfer Station		B	1,047	1,047	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2014	Oak Ridge	TN	Not Covered	3.570	44.000								
Y-12 Site Offic	21002	1	127342	9983-BN	Office		T	1,043	1,043	-		146	SC	NNSA	O	Y	Operating	2050	Oak Ridge	TN	Not Covered	53.380	42.000								
Y-12 Site Offic	21002	1	128438	9404-24	Fire Water Pump House		B	1,043	1,043	-		146	NNSA	NNSA	O	N	Operational Stand	2050	Oak Ridge	TN	Not Covered	3.560	41.000								
Y-12 Site Offic	21002	1	98247	9409-31	Cooling Tower, 9202/9203		S	1,000	871	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	1,266.740	37.000								
Y-12 Site Offic	21002	1	127348	9727-04A	Annex Building for 9727-04		B	977	977	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	3,344.850	35.000								
Y-12 Site Offic	21002	1	98580	9722	OFFICE & RESTROOMS		T	960	960	-		146	EM	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	49.130	35.000								
Y-12 Site Offic	21002	1	98412	9404-13	Pumphouse, 9404-13		B	952	952	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	4,752.980	35.000								
Y-12 Site Offic	21002	1	98673	9819	Maintenance Storage		B	835	835	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	8.550	34.000								
Y-12 Site Offic	21002	1	98670	9817-01	Fire Training Facility		B	824	824	-		146	NNSA	NNSA	O	N	Operating	2021	Oak Ridge	TN	Not Covered	2.810	32.000								
Y-12 Site Offic	21002	1	98800	9993	Storage		S	800	800	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	25.870	32.000								
Y-12 Site Offic	21002	1	98194	9811-09	Transfer Station 9811-9		S	800	800	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	7.740	31.000								
Y-12 Site Offic	21002	1	98559	9720-30	Storage		B	792	792	-		146	NNSA	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	8.110	31.000								
	21002	5	210588	K-1654-NN	Explosives Storage Bunker		S	769	0	0		146	NNSA	NNSA	O		Operating	2050	Oak Ridge	TN	Not Covered	0.29	31								
	21002	5	206337	K-1654-Z	Explosives Storage Bunker		S	769	0	0		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.29	30								
Y-12 Site Offic	21002	1	98611	9732-01	General Shops		B	754	754	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	5.150	29.000								
Y-12 Site Offic	21002	1	98581	9722-02	Emergency Power		B	663	663	-		146	SC	NNSA	O	N	Operating	2020	Oak Ridge	TN	Not Covered	76.910	29.000								
Y-12 Site Offic	21002	1	98498	9610-03	Filter Test		B	656	656	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	4.480	28.000								
Y-12 Site Offic	21002	1	98515	9701-05	Guard Support		B	640	640	-		146	NNSA	NNSA	O	N	Operating	2017	Oak Ridge	TN	Not Covered	32.760	28.000								
Y-12 Site Offic	21002	5	143720	K-1654-JJ	ESS Storage magazine (CTF Map #7)		T	640	640	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	6.550	28.000								
Y-12 Site Offic	21002	1	98668	9816	Training		B	633	633	-		146	NNSA	NNSA	O	N	Operating	2018	Oak Ridge	TN	Not Covered	32.400	27.000								
Y-12 Site Offic	21002	5	211123	K-1654	Live Fire Range Storage Building		B	624	624	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	6.380	26.000								
Y-12 Site Offic	21002	1	98671	9817-02	Fire Training Facility		B	617	617	-		146	NNSA	NNSA	O	N	Operating	2021	Oak Ridge	TN	Not Covered	2.110	24.000								
Y-12 Site Offic	21002	1	98250	9409-30	Cooling Tower, 9737		S	600	1,070	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1,501.280	24.000								
Y-12 Site Offic	21002	1	98695	9828-03	Bag Filter House		B	568	568	-		146	NNSA	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	3.880	23.000								
Y-12 Site Offic	21002	1	98693	9828-01	Bag Filter System		B	557	557	-		146	NNSA	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	3.800	23.000								
Y-12 Site Offic	21002	1	98418	9404-21	Pumphouse, 9404-21		B	536	536	-		146	NNSA	NNSA	O	N	Operational Stand	2050	Oak Ridge	TN	Not Covered	1.830	22.000								
Y-12 Site Offic	21002	5	201080	K-1654-R	Laborers Office, Break Area		T	512	512	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	5.240	22.000								
Y-12 Site Offic	21002	1	133766	9983-FJ	Office Space		T	480	480	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	24.570	22.000								
Y-12 Site Offic	21002	5	207062	K-1654-U	Remote Operated Weapons		B	480	480	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	3.280	22.000								
	21002	2	98612	9732-02	Storage Building		B	480	0	0		146	NNSA	NNSA	O		Shutdown Pendin	2022	Oak Ridge	TN	Not Covered	-	22								
Y-12 Site Offic	21002	1	98804	9999	Motor Generator		B	460	460	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	52.670	21.000								
Y-12 Site Offic	21002	1	98507	9616-10	Bulk Sulphuric Unload Station		B	438	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	1.490	21.000								
	21002	1	140468	9949-83	Post 33 Break Trailer		T	427	427	0		146	NNSA	NNSA	O		Operating	2023	Oak Ridge	TN	Not Covered	-	21								
Y-12 Site Offic	21002	1	141464	9720-84	Storage Shed		S	420	420	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	2.870	21.000								
Y-12 Site Offic	21002	1	141465	9720-85	Storage Shed		S	420	420	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	2.870	20.000								
Y-12 Site Offic	21002	1	98572	9720-48	Lineman Truck Garage		S	417	3,644	-		146	NNSA	NNSA	O	N	Operating	2022	Oak Ridge	TN	Not Covered	37.300	20.000								
Y-12 Site Offic	21002	1	98674	9820	Electrical Storage		B	408	408	-		146	NNSA	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	4.180	18.000								
Y-12 Site Offic	21002	1	98583	9722-04	Generator Bldg.		B	406	406	-		146	EM	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	47.100	18.000								
Y-12 Site Offic	21002	1	204192	9124	Storage Building		T	400	400	-		146	NNSA	NNSA	O	N	Operating Pendin	2014	Oak Ridge	TN	Not Covered	4.090	18.000								
	21002	2	98636	9767-06	Utilities		B	400	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	-	17								
	21002	2	133775	9767-07	Utilities		B	393	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2021	Oak Ridge	TN	Not Covered	-	17								
	21002	1	203806	9983-HF	Decon Shower Facility		T	375	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2050	Oak Ridge	TN	Not Covered	-	17								
Y-12 Site Offic	21002	1	133705	9983-AZ	WTSD Sampling Crew Trailer		T	363	363	-		146	SC	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	18.580	17.000								
Y-12 Site Offic	21002	1	133806	9424-03	Foam Bldg. for 9720-58		B	360	360	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	2.460	17.000								
	21002	1	133804	9424-01	Foam House for OD-9 (FP)		B	359	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2017	Oak Ridge	TN	Not Covered	-	15								
Y-12 Site Offic	21002	1	133803	9423-02	Meter Building (2015)		B	357	357	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1.530	15.000								
	21002	1	133805	9424-02	Foam House for OD-10 (FP)		B	357	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2017	Oak Ridge	TN	Not Covered	-	15								
	21002	3	134129	9840-04	Drum Cleaning Station		B	312	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2030	Oak Ridge	TN	Not Covered	-	15								
	21002	1	98603	9724-01	Breakroom Facility		B	298	298	0		146	NNSA	NNSA	O	N	Operating	2014	Oak Ridge	TN	Not Covered	-	15								
Y-12 Site Offic	21002	1	98125	1501-03	Switchyard Control Building (K741A)		B	294	294	-		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	34.110	15.000								
Y-12 Site Offic	21002	1	133708	9983-BE	Tank Farm Office		T	294	294	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	15.050	15.000								

Site Name	Site	Area	Seq No	Prop ID	Prop Name	Excl Part	Prop Type	GSFT	EC Bldg Fac	EC Metered	Justification	EMS Site	PSO	Lead PSO	Ownership	Outgrant Ind	Status	Est Disposition Yr	Location City	Location State	Covered or Not Covered?	Estimated Total Energy Used (10^6 x Btu/Yr)	Estimated Total Water Used (10^3 x Gal/Yr)	Anticipated or Actual Energy Evaluation Date (MM/YY)	Anticipated or Actual Water Evaluation Date (MM/YY)	Anticipated or Actual Evaluation Type/Level	Retro/Re-Commissioning Assessment	Benchmarking Status	Benchmarking System	Additional Information	SPO Review/Requests
Y-12 Site Offic	21002	1	133707	9983-BD	Storage shed		T	294	294	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	3.010	15.000								
Y-12 Site Offic	21002	1	98575	9720-51	Shed-Maintenance Storage		S	278	2,288	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	23.420	15.000								
	21002	3	133796	9999-02	Motor Generator (9213 area)		B	266	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2033	Oak Ridge	TN	Not Covered	-	15								
	21002	1	98720	9949-52	Post 13		B	251	251	0		146	NNSA	NNSA	O	N	Operational Stan	2050	Oak Ridge	TN	Not Covered	-	14								
Y-12 Site Offic	21002	1	98807	9999-05	Guard Support Building		B	250	250	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	2.560	13.000								
	21002	1	98746	9977	Utilities		B	248	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2014	Oak Ridge	TN	Not Covered	-	13								
Y-12 Site Offic	21002	1	139675	9720-80	LSF Storage		B	240	240	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	2.460	13.000								
Y-12 Site Offic	21002	1	98565	9720-37	Storage/Emergency Shelter		B	230	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2014	Oak Ridge	TN	Not Covered	0.780	12.000								
Y-12 Site Offic	21002	1	98455	9416-35	Water Treatment Bldg.		B	229	229	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1.560	11.000								
Y-12 Site Offic	21002	1	98731	9949-70	Guard Tower, Post 8		B	224	224	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	3.820	11.000								
Y-12 Site Offic	21002	1	98510	9622	Warehouse/Industrial		B	218	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2018	Oak Ridge	TN	Not Covered	0.740	11.000								
Y-12 Site Offic	21002	1	98638	9767-09	Transformer		B	211	211	-		146	NNSA	NNSA	O	N	Operating	2035	Oak Ridge	TN	Not Covered	24.480	11.000								
Y-12 Site Offic	21002	1	210044	9404-26A	Electric fire pumphouse		B	204	204	-		146	NNSA	NNSA	O	N	Operating		Oak Ridge	TN	Not Covered	1.390	11.000								
Y-12 Site Offic	21002	1	210145	9404-26B	Diesel Fire pumphouse		B	204	204	-		146	NNSA	NNSA	O	N	Operating		Oak Ridge	TN	Not Covered	1.390	11.000								
Y-12 Site Offic	21002	1	98275	9409-34	Cooling Tower, 9201-04		S	200	528	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1,501.280	11.000								
Y-12 Site Offic	21002	1	98452	9416-32	Water Treatment & Valve House		B	200	200	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	1.360	11.000								
Y-12 Site Offic	21002	1	98453	9416-33	Fire Protection for 9409-26		B	200	200	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	1.360	11.000								
Y-12 Site Offic	21002	3	133738	9983-CQ	WTSD Sampling Crew Trailer		T	198	198	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	10.130	11.000								
Y-12 Site Offic	21002	1	210207	9949-D1	Guard Support Building		B	198	198	-		146	NNSA	NNSA	O	N	Operating		Oak Ridge	TN	Not Covered	3.380	11.000								
Y-12 Site Offic	21002	1	98694	9828-02	Probe House		B	193	193	-		146	NNSA	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	1.320	11.000								
Y-12 Site Offic	21002	1	133789	9724-03	Radio Repeater Station		B	187	187	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1.280	11.000								
Y-12 Site Offic	21002	1	98656	9803	Utilities		B	174	174	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2014	Oak Ridge	TN	Not Covered	0.590	11.000								
Y-12 Site Offic	21002	1	98794	9984-A	Radio Communication		B	171	171	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1.170	9.000								
Y-12 Site Offic	21002	1	98516	9701-06	Post 5		B	163	-	-		146	NNSA	NNSA	O	N	Operational Stan	2050	Oak Ridge	TN	Not Covered	0.560	9.000								
Y-12 Site Offic	21002	1	98451	9416-31	Fire Protection Valve House (-13 Tower)		B	162	162	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1.110	9.000								
Y-12 Site Offic	21002	1	205683	9983-HJ	Decon Trailer		T	160	160	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	12.560	9.000								
Y-12 Site Offic	21002	1	133727	9983-HS	Lineman's Break Room		T	160	160	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	8.190	9.000								
Y-12 Site Offic	21002	1	98711	9949-38	Guard Tower, Post 23		B	160	160	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	2.730	9.000								
	21002	1	207049	9949-BA	Explosive Detection		B	159	159	0		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	-	9								
Y-12 Site Offic	21002	1	98579	9721	Office Trailer		T	157	157	-		146	NNSA	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	8.040	9.000								
Y-12 Site Offic	21002	1	207050	9949-BB	Explosive Detection		B	156	156	-		146	NNSA	NNSA	O	N	Operational Stan	2023	Oak Ridge	TN	Not Covered	2.660	9.000								
Y-12 Site Offic	21002	1	207061	9949-BC	Explosive Detection		B	156	156	-		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	2.660	9.000								
	21002	2	98647	9770-02	Radiation Source Bldg.		B	155	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2020	Oak Ridge	TN	Not Covered	-	9								
Y-12 Site Offic	21002	1	98654	9802-01	Steam Station at 9204-04		B	151	151	-		146	NNSA	NNSA	O	N	Operating	2014	Oak Ridge	TN	Not Covered	1.030	9.000								
Y-12 Site Offic	21002	1	98655	9802-02	Steam Station at 9204-04		B	151	151	-		146	NNSA	NNSA	O	N	Operating	2014	Oak Ridge	TN	Not Covered	1.030	9.000								
Y-12 Site Offic	21002	3	133731	9983-CG	WTSD Sampling Crew Trailer		T	150	150	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	7.680	9.000								
Y-12 Site Offic	21002	1	98448	9416-28	Fire Protection Valve House (-22 Tower)		B	149	149	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1.020	9.000								
Y-12 Site Offic	21002	1	98496	9610-01	Flammable Storage		B	147	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2032	Oak Ridge	TN	Not Covered	0.500	9.000								
Y-12 Site Offic	21002	1	98703	9949-07	Post 9		B	144	144	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	2.460	9.000								
Y-12 Site Offic	21002	1	98462	9417-08	Spill Response Storage		B	144	144	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1.470	9.000								
Y-12 Site Offic	21002	1	98657	9804	Valve House for 9201-04		B	130	130	-		146	NNSA	NNSA	O	N	Operating	2026	Oak Ridge	TN	Not Covered	0.890	9.000								
Y-12 Site Offic	21002	1	98649	9770-06	Storm Sewer Sampling Station		B	129	129	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2020	Oak Ridge	TN	Not Covered	0.440	9.000								
Y-12 Site Offic	21002	1	98432	9416-12	Utilities, 9416-12		B	126	126	-		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	0.860	9.000								
Y-12 Site Offic	21002	3	98519	9703-14	Former Post 3-South Portal(9213 area)		B	123	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2025	Oak Ridge	TN	Not Covered	0.420	9.000								
	21002	1	138846	9949-37	Guard Tower, Post 41		B	121	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2017	Oak Ridge	TN	Not Covered	-	9								
Y-12 Site Offic	21002	1	204396	9949-AN	Canine Facility		B	120	120	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	2.050	9.000								
Y-12 Site Offic	21002	1	207033	9949-AY	Canine Facility Post 33		B	120	120	-		146	NNSA	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	2.050	9.000								
Y-12 Site Offic	21002	1	98490	9422-18	Monitoring Station SS6		B	120	120	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.820	9.000								
Y-12 Site Offic	21002	1	203782	9902-03	Meteorological Tower 40 meters		S	120	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.680	9.000								
Y-12 Site Offic	21002	5	137234	K-1654-N	Storage Shed		B	112	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1.150	8.000								
Y-12 Site Offic	21002	1	98735	9949-74	Guard Tower, Post 24		B	110	110	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	1.880	8.000								
Y-12 Site Offic	21002	1	98737	9949-76	Guard Tower, Post 33		B	110	110	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	1.880	8.000								
Y-12 Site Offic	21002	1	203978	9417-11	System 2/3 Dechlorination		B	108	108	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.740	8.000								
Y-12 Site Offic	21002	1	98650	9770-07	EST Transponder Facility		B	108	108	-		146	NNSA	NNSA	O	N	Operating	2025	Oak Ridge	TN	Not Covered	0.740	7.000								
Y-12 Site Offic	21002	1	141833	9770-10	CEM #1		B	106	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	0.360	7.000								
	21002	1	141834	9770-11	CEM #2		B	106	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	0.36	7								
	21002	1	98743	9959-01	General Storage		B	106	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2039	Oak Ridge	TN	Not Covered	-	7								
Y-12 Site Offic	21002	1	98723	9949-62	Post 1		B	105	105	-		146	NNSA	NNSA	O	N	Operating	2035	Oak Ridge	TN	Not Covered	1.790	7.000								
Y-12 Site Offic	21002	1	98725	9949-64	Post 10		B	105	105	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1.790	7.000								
Y-12 Site Offic	21002	1	98730	9949-69	Post 14		B	104	104	-		146	SC	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	1.770	7.000								
Y-12 Site Offic	21002	5	137239	K-1654-G	Storage Shed		B	100	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1.020	7.000								
Y-12 Site Offic	21002	1	98463	9417-09	Dechlorination Facility		B	100	100	-		146	NNSA	NNSA	O	N	Operating	2017	Oak Ridge	TN	Not Covered	1.020	7.000								
Y-12 Site Offic	21002	1	98447	9416-27	Fire Protection-Valve House		B	96	96	-		146	NNSA	NNSA	O	N	Operating	2017	Oak Ridge	TN	Not Covered	0.660	7.000								
	21002	1	98459	9416-41	Sprinkler Valve House		B	94	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2039	Oak Ridge	TN	Not Covered	0.32	7								
	21002	1	133818	9826	Truck Scale and Control Building		B	90	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2016	Oak Ridge	TN	Not Covered	-	7								
Y-12 Site Offic	21002	1	133790	9724-05	Transmitter Receiving Station		B	87	87	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.590	7.000								
Y-12 Site Offic	21002	1	207259	9949-AP	Guard Tower		B	80	80	-		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	1.360	6.000								
Y-12 Site Offic	21002	1	207260	9949-AR	Guard Tower		B	80	80	-		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	1.360	6.000								
Y-12 Site Offic	21002	1	207261	9949-AS	Guard Tower		B	80	80	-		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	1.360	6.000								
Y-12 Site Offic	21002	1	207034	9949-AZ	Canine Facility Post 20		B	80	80	-		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	1.360	6.000								
Y-12 Site Offic	21002	1	98798	9990	Monitoring Station		B	80	80	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.550	6.000								
Y-12 Site Offic	21002	1	133784	9418-10	Vacuum Pump Bldg.		B	80	80	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.550	6.000								
	21002	1	98704	9949-17	Post 3		B	80	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2050	Oak Ridge	TN	Not Covered	0.27	6								
Y-12 Site Offic	21002	1	98732	9949-71	Post 8		B	78	78	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	1.330	6.000								
Y-12 Site Offic	21002	1	98733	9949-72	Post 8b		B	78	78	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	1.330	5.000								
Y-12 Site Offic	21002	1	203977	9417-10	System 1 Dechlorination		B	78	78	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.530	5.000								
Y-12 Site Offic	21002	1	98473	9422-01	Monitoring Station EFP		B	78	78	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.530	5.000								
Y-12 Site Offic	21002	1	98475	9422-03	Monitoring Station C8		B	78	78	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.530	5.000								
Y-12 Site Offic	21002	1	133781	9416-44	Sprinkler Valve House		B	75	75	-		146	EM	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	0.510	5.000								
	21002	1	144064	9817-03	Training Tower		S	75	180	0		146	NNSA	NNSA	O	N	Operating	2017	Oak Ridge	TN	Not Covered	-	4								
Y-12 Site Offic	21002	1	98736	9949-75	Post 24		B	66	66	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	1.130	3.000								
	21002	1	98740	9949-79	Post 17		B	66	66	0		146	NNSA	NNSA	O	N	Operational Stan	2050	Oak Ridge	TN	Not Covered	-	590								
Y-12 Site Offic	21002	1	98739	9949-78	Post 33a		B	65	65	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	1.110	337.000								
Y-12 Site Offic	21002	1	98741	9949-80	Post 33b		B	65	65	-		146	NNSA	NNSA	O	N	Operating	2017	Oak Ridge	TN	Not Covered	1.110	303.000								
Y-12 Site Offic	21002	1	143442	9949-89	New Hope Pond Portal		B	64	64	-		146	NNSA	NNSA	O	N	Operating	2014	Oak Ridge	TN	Not Covered	1.090	303.000								
Y-12 Site Offic	21002	1	143444	9949-91	Checkpoint 20		B	64	64	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1.090	202.000								
Y-12 Site Offic	21002	1	143445	9949-92	Post 33 Pedestrian Portal		B	64	64	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	1.090	189.000								
Y-12 Site Offic	21002	1	98488	9422-16	Storm Drain Monitoring		B	64	64	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.440	183.000								
Y-12 Site Offic	21002	1	98489	9422-17	Monitoring Station OF-502		B	64	64	-		146	EM	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.440	183.000								
Y-12 Site Offic	21002	1	134114	9422-20	Monitoring Station		B	64	64	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.440	183.000								
Y-12 Site Offic	21002	2	134132	9990-02	Perimeter Air Monitoring Station #40		B	64	64	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.440	183.000								
	21002	1	98444	9416-24	Utilities, 9416-24		B	64	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2017	Oak Ridge	TN	Not Covered	0.22	146								
	21002	1	208418	9994	Visitor Overlook		S	64	0	0		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	-	67								
	21002	1	143443	9949-90	Security Support Building		B	64	64	0		146	NNSA	NNSA	O	N	Operational Stan	2050	Oak Ridge	TN	Not Covered	-	60								

Site Name	Site	Area	Seq No	Prop ID	Prop Name	Excl Part	Prop Type	GSFT	EC Bldg Fac	EC Metered	Justification	EMS Site	PSO	Lead PSO	Ownership	Outgrant Ind	Status	Est Disposition Yr	Location City	Location State	Covered or Not Covered?	Estimated Total Energy Used (10^6 x Btu/Yr)	Estimated Total Water Used (10^3 x Gal/Yr)	Anticipated or Actual Energy Evaluation Date (MM/YY)	Anticipated or Actual Water Evaluation Date (MM/YY)	Anticipated or Actual Evaluation Type/Level	Retro/Re-Commissioning Assessment	Benchmarking Status	Benchmarking System	Additional Information	SPO Review/Requests
Y-12 Site Offic	21002	1	98476	9422-04	Chlorine Chemical Treatment		B	63	63	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.430	53.000								
Y-12 Site Offic	21002	1	98477	9422-05	Storage		B	62	62	-		146	EM	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.630	51.000								
Y-12 Site Offic	21002	1	140460	9422-07	Storage		B	62	62	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.630	41.000								
Y-12 Site Offic	21002	1	140462	9422-09	Storage		B	62	62	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.630	41.000								
Y-12 Site Offic	21002	1	98483	9422-11	Storage		B	62	62	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.630	28.000								
Y-12 Site Offic	21002	1	98485	9422-13	Storage		B	62	62	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.630	22.000								
Y-12 Site Offic	21002	1	98487	9422-15	Storage		B	62	62	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.630	22.000								
Y-12 Site Offic	21002	1	98474	9422-02	Monitoring Station OF-21		B	62	62	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.420	22.000								
Y-12 Site Offic	21002	1	98478	9422-06	Monitoring Station C11		B	62	62	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.420	21.000								
Y-12 Site Offic	21002	1	140461	9422-08	Monitoring Station S24		B	62	62	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.420	2,600.000								
Y-12 Site Offic	21002	1	98482	9422-10	Storm Drain Monitoring,#2		B	62	62	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.420	2,563.000								
Y-12 Site Offic	21002	1	98484	9422-12	Monitoring Station OF125		B	62	62	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.420	737.000								
Y-12 Site Offic	21002	1	98486	9422-14	Monitoring Station OF135/200		B	62	62	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.420	662.000								
	21002	1	98701	9949-04	Post 25		B	61	61	0		146	NNSA	NNSA	O	N	Operational Stand	2050	Oak Ridge	TN	Not Covered	0.21	597								
Y-12 Site Offic	21002	1	133780	9416-42	Sprinkler Valve House		B	57	57	-		146	NNSA	NNSA	O	N	Operating	2022	Oak Ridge	TN	Not Covered	0.390	593.000								
Y-12 Site Offic	21002	1	98734	9949-73	Post 8c		B	55	55	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	0.940	337.000								
Y-12 Site Offic	21002	1	98738	9949-77	Post 33		B	55	55	-		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	0.940	331.000								
Y-12 Site Offic	21002	1	204650	9720-88	Storage Shed		S	55	-	-		146	NNSA	NNSA	O	N	Operating		Oak Ridge	TN	Not Covered	0.380	281.000								
Y-12 Site Offic	21002	1	204651	9720-89	Storage Shed		S	55	-	-		146	NNSA	NNSA	O	N	Operating		Oak Ridge	TN	Not Covered	0.380	253.000								
Y-12 Site Offic	21002	1	133783	9416-46	Valve House N. of 9423		B	54	54	-		146	NNSA	NNSA	O	N	Operating	2028	Oak Ridge	TN	Not Covered	0.370	202.000								
	21002	1	133802	9416-39	Sprinkler Valve House		B	52	52	0		146	NNSA	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	0.35	72								
	21002	1	134111	9416-40	Sprinkler Valve House		B	52	52	0		146	NNSA	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	0.35	67								
	21002	1	134112	9416-43	Sprinkler Valve House		B	52	52	0		146	NNSA	NNSA	O	N	Operating	2034	Oak Ridge	TN	Not Covered	0.35	16								
Y-12 Site Offic	21002	3	134117	9611-04	Landfill Sampling Station		S	50	293	-		146	NNSA	NNSA	O	N	Operating Pendin	2050	Oak Ridge	TN	Not Covered	2.000	14.000								
Y-12 Site Offic	21002	3	134116	9611-03	Ground Water Sampling Equipment		S	50	176	-		146	NNSA	NNSA	O	N	Operating Pendin	2050	Oak Ridge	TN	Not Covered	1.200	90.000								
	21002	1	133782	9416-45	Valve House W. of B-2		B	49	49	0		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	0.33									
	21002	1	98306	9949-35	Guard Tower, Post 45		B	49	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2014	Oak Ridge	TN	Not Covered	-									
	21002	1	138850	9949-47	Guard Tower, Post 47		B	49	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2014	Oak Ridge	TN	Not Covered	-									
	21002	1	138852	9949-49	Guard Tower, Post 49		B	49	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2014	Oak Ridge	TN	Not Covered	-									
	21002	1	133821	9949-51	Guard Tower, Post 43		B	49	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2017	Oak Ridge	TN	Not Covered	-									
Y-12 Site Offic	21002	1	203619	9949-93	Post 8 Pedestrian		B	48	48	-		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	0.820	0.000								
Y-12 Site Offic	21002	1	204191	9949-98	Portal 20		B	48	48	-		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	0.820	0.000								
Y-12 Site Offic	21002	1	204479	9949-AE	Portal 13		B	48	48	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.820	0.000								
Y-12 Site Offic	21002	1	204480	9949-AG	Guard Portal		B	48	48	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.820	0.000								
	21002	1	98797	9989	So2 Monitor Station		B	48	48	0		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.33									
Y-12 Site Offic	21002	3	204734	9720-90	Storage Shed		S	44	-	-		146	NNSA	NNSA	O	N	Operating		Oak Ridge	TN	Not Covered	10.240	0.000								
	21002	1	98431	9416-11	Utilities, 9416-11		B	44	44	0		146	NNSA	NNSA	O	N	Operating	2040	Oak Ridge	TN	Not Covered	0.3									
	21002	1	98434	9416-14	Utilities, 9416-14		B	44	44	0		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.3									
	21002	1	98436	9416-16	Utilities, 9416-16		B	44	44	0		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	0.3									
	21002	1	98446	9416-26	Fire Protection for 9409-18/31		B	44	44	0		146	NNSA	NNSA	O	N	Operating	2039	Oak Ridge	TN	Not Covered	0.3									
	21002	1	98457	9416-37	Sprinkler Valve House		B	43	43	0		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.29									
Y-12 Site Offic	21002	1	98722	9949-61	Post 1		B	42	42	-		146	NNSA	NNSA	O	N	Operating	2035	Oak Ridge	TN	Not Covered	0.720	0.000								
Y-12 Site Offic	21002	1	98724	9949-63	Post 10		B	42	42	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.720	0.000								
Y-12 Site Offic	21002	1	98712	9949-39	Post 23a		B	40	40	-		146	EM	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.680	0.000								
Y-12 Site Offic	21002	1	98729	9949-68	Post 14		B	36	36	-		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	0.610	0.000								
	21002	1	98456	9416-36	Sprinkler Valve House		B	36	36	0		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	0.25									
	21002	1	98458	9416-38	Sprinkler Valve House		B	36	36	0		146	NNSA	NNSA	O	N	Operating	2032	Oak Ridge	TN	Not Covered	0.25									
	21002	1	138854	9949-36	Guard Tower, Post 48		B	36	0	0		146	NNSA	NNSA	O	N	Shutdown Pendin	2014	Oak Ridge	TN	Not Covered	-									
Y-12 Site Offic	21002	1	201388	9416-48	Big Spring Water Treatment System		S	35	3,000	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	20.470	0.000								
	21002	1	98708	9949-29	Post 32		B	34	0	0		146	NNSA	NNSA	O	N	Operational Stand	2018	Oak Ridge	TN	Not Covered	-									
	21002	1	98702	9949-05	Post 2 (North Portal)		B	28	28	0		146	NNSA	NNSA	O	N	Operational Stand	2050	Oak Ridge	TN	Not Covered	0.1									
Y-12 Site Offic	21002	5	206339	K-1654-GG	Outdoor Firing Range #3 Map 24		S	24	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	5.120	0.000								
Y-12 Site Offic	21002	1	203617	9949-86	Post 23n		B	24	24	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.410	0.000								
	21002	1	204733	9720-87W	Storage Shed		S	22	0	0		146	NNSA	NNSA	O	N	Operating	2033	Oak Ridge	TN	Not Covered	0.15									
Y-12 Site Offic	21002	1	210248	9418-13	Nitrogen Plant		S	1	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	116.010	0.000								
Y-12 Site Offic	21002	1	98582	9722-03	Storage shed		S	1	5,015	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	51.330	0.000								
Y-12 Site Offic	21002	5	206335	K-1654-HH	Live Fire Shoot House Map 32		S	1	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	51.180	0.000								
Y-12 Site Offic	21002	1	98574	9720-50	Shed-Maintenance Storage		S	1	3,867	-		146	NNSA	NNSA	O	N	Operating	2031	Oak Ridge	TN	Not Covered	39.580	0.000								
Y-12 Site Offic	21002	1	205452	9720-98	Lineman Storage		S	1	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	39.580	0.000								
Y-12 Site Offic	21002	1	98576	9720-52	Shed-Maintenance Storage		S	1	3,867	-		146	NNSA	NNSA	O	N	Operating	2031	Oak Ridge	TN	Not Covered	23.420	0.000								
Y-12 Site Offic	21002	1	200846	9949-94	Post 23 Canopy		S	1	4,872	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	17.060	0.000								
Y-12 Site Offic	21002	1	200847	9949-95	Post 20 Canopy		S	1	2,106	-		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	17.060	0.000								
Y-12 Site Offic	21002	1	200654	9949-96	Post 8 Canopy		S	1	8,100	-		146	NNSA	NNSA	O	N	Operating	2023	Oak Ridge	TN	Not Covered	17.060	0.000								
Y-12 Site Offic	21002	1	203721	9949-AF	Portal 5 Canopy		S	1	-	-		146	NNSA	NNSA	O	N	Operating		Oak Ridge	TN	Not Covered	17.060	0.000								
Y-12 Site Offic	21002	1	134131	9977-02	Hydrogen Yard		S	1	2,520	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	17.060	0.000								
Y-12 Site Offic	21002	1	207258	9720-AQ	Storage Shed		S	1	1,300	-		146	EM	NNSA	O	N	Operating	2031	Oak Ridge	TN	Not Covered	13.310	0.000								
Y-12 Site Offic	21002	1	204399	9720-AH	Electrical Storage		S	1	1,200	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	12.280	0.000								
Y-12 Site Offic	21002	1	142006	9500-01	Metal Canopy		S	1	1,500	-		146	NNSA	NNSA	O	N	Operating	2026	Oak Ridge	TN	Not Covered	10.240	0.000								
Y-12 Site Offic	21002	1	205453	9720-99	Lineman Storage Shed		S	1	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	10.240	0.000								
Y-12 Site Offic	21002	1	201529	9422-22	East End VOC Plume Treatment System		S	1	560	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	6.820	0.000								
Y-12 Site Offic	21002	1	98505	9616-08	Filter Treatment Fac.		S	1	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	6.820	0.000								
Y-12 Site Offic	21002	1	133810	9720-75	90 Day - Haz. Waste Storage Bldg.		S	1	489	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	6.820	0.000								
Y-12 Site Offic	21002	1	133787	9720-76	90 Day-Work Bay Storage Bldg.		S	1	245	-		146	NNSA	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	6.820	0.000								
Y-12 Site Offic	21002	1	133788	9720-77	90 Day-Non-Haz. Waste Storage Bldg.		S	1	247	-		146	EM	NNSA	O	N	Operating	2036	Oak Ridge	TN	Not Covered	6.820	0.000								
Y-12 Site Offic	21002	3	98569	9720-44	Shed-Sludge Handling Facility		S	1	2,993	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2050	Oak Ridge	TN	Not Covered	3.410	0.000								
Y-12 Site Offic	21002	3	98199	9811-08	Transfer Station, 9811-8		S	1	1,941	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2022	Oak Ridge	TN	Not Covered	3.410	0.000								
Y-12 Site Offic	21002	1	210208	9949-D2	Canopy		S	1	-	-		146	NNSA	NNSA	O	N	Operating		Oak Ridge	TN	Not Covered	1.710	0.000								
Y-12 Site Offic	21002	1	98315	9902-01	Tower,Meteor.,197 Ft. Hi		S	1	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	0.680	0.000								
Y-12 Site Offic	21002	1	98253	9409-15	Cooling Tower, 9204-03		S	-	-	-		146	NNSA	NNSA	O	N	Operating	2050	Oak Ridge	TN	Not Covered	1,501.280	0.000								
Y-12 Site Offic	21002	1	98167	9409-20	Cooling Tower, 9204-04		S	-	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2017	Oak Ridge	TN	Not Covered	136.480	0.000								
Y-12 Site Offic	21002	1	140366	9409-36	Cooling Tower, 9213		S	-	-	-		146	NNSA	NNSA	O	N	Shutdown Pendin	2017	Oak Ridge	TN	Not Covered	136.480	0.000								