

Crosswalk of Sustainability Goals and Targets In Executive Orders and Statutes

December 2, 2009

The new Executive Order (E.O.) 13514 *Federal Leadership in Environmental, Energy, and Economic Performance* (October 5, 2009) establishes goals and targets and requirements for Federal agencies. It builds on, but does not replace, E.O. 13423 *Strengthening Federal Environmental, Energy, and Transportation Management* (January 24, 2007). In addition, the Executive Orders reference or incorporate several statutory requirements for Federal agencies.

In response to requests from Department of Energy sites and programs, the Department's Office of Environmental Policy and Assistance developed the attached crosswalk of sustainability goals and targets. The crosswalk aligns goals and targets from E.O. 13514, E.O. 13423, and statutes, in order to assist federal managers in identifying current requirements. We hope that the document will prove useful as the Department moves forward in identifying our sustainability goals and targets and in implementing budgets and programs to achieve these goals and targets.

Environmental management systems (EMSs) are identified in both E.O. 13514 and E.O. 13423 as the management framework which agencies and facilities should use to identify and achieve their sustainability goals and targets.

This crosswalk was developed by the Office of Environmental Policy and Assistance, with helpful additions from staff in the Federal Energy Management Program as well as review by others familiar with the Executive Orders and other requirements. If you have comments or suggestions for improving the crosswalk, please direct them to Steven Woodbury, at DOE's Office of Environmental Policy and Assistance (HS-22) (steven.woodbury@hq.doe.gov).

Crosswalk of Sustainability Goals and Targets in Executive Orders and Statutes

Goal / Target	EO 13423	EO 13514	Existing Statute
<i>GHG Baseline</i>		Prepare baseline of GHG emissions for scope 1 and 2 emissions for FY 2008 by January 3, 2010 for scope 3 GHG emissions by June 2, 2010 [§7((b)(i)). (Headquarters Lead).	
<i>GHG Emission Reductions</i>	Reduce GHG emissions through reduction of energy intensity by (1) 3% annually through FY 2015 or (2) 30% by FY 2015 (baseline 2003). [§2(a)]	Establish agency-wide GHG emission percentage reduction targets by FY 2020 (baseline FY 2008) for: <ul style="list-style-type: none"> • Scope 1 and scope 2 GHG emissions by FY 2020 (due January 4, 2010). • Scope 3 GHG emissions (due June 2, 2010). [§2(a) and (b)]	
<i>GHG Emission Reporting</i>		Report comprehensive GHG emission inventory for FY 2010 by January 5, 2011, and annually thereafter by the end of January. [§2(c)]	[EISA §527]: Each Federal agency must issue an annual report that describes the status of initiatives to improve energy efficiency, reduce energy costs, and reduce GHG emissions. [EPA MGGRR]: Facilities and suppliers of fossil fuels or industrial GHGs that emit more than 25,000 metric tons of CO ₂ -e per year must report their emissions by March 31, 2011, for 2010 emissions. Reports submitted annually thereafter.
<i>Building Energy</i>	Reduce building energy intensity 3% annually through FY 2015, or 30% total reduction by FY 2015 (baseline FY 2003). [§2(a)]	Reduce energy intensity in buildings to achieve GHG reductions. [§2(a)(i)]	[EISA §431]: Reduce building energy intensity 3% annually through 2015, or 30% total reduction by 2015 (baseline 2003).

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Renewable Energy Consumption	Ensure that 50% of statutorily required renewables comes from "new" (as of 1999) sources. [§2(b)]	Increase use of renewable energy. [§2(a)(ii)]	<p>[EPAct 2005 §203]: Defines “renewable energy.”</p> <p>[EPAct 2005 §203]: Increase renewables 3% in FY2007-2009;</p> <ul style="list-style-type: none"> • Increasing to 5% in FY 2010-2012. • Increasing to 7.5% in FY 2013 and beyond. <p>[EISA §523]: 30% of hot water demand in new Federal buildings and major renovations must be met with solar hot water if life-cycle cost effective.</p>
Fleet Petroleum Use	<p>Reduce by 2% vehicle petroleum annually through FY2015 (baseline FY2005). [§2(g)]</p> <p>Achieve 10% increase in non-petroleum fuel consumption annually (baseline FY2005). [§2(g)]</p> <p>Use plug-in hybrids when PIH are commercially available at a life-cycle cost reasonably comparable to non-PIH vehicles. [§2(g)]</p>	<p>Reduce fleet’s consumption of petroleum products 2% annually through end of FY 2020 (baseline FY 2005). [§2(a)(iii)(C)]</p> <p>Use low-GHG-emitting vehicles. [§2(a)(iii)(A)]</p> <p>Optimize number of vehicles in fleet. [§2(a)(iii)(B)]</p>	<p>[EISA §142]: Reduce vehicle petroleum reduction 20% by FY 2015 (baseline FY2005).</p> <p>[EISA §142]: Achieve 10% increase in non-petroleum fuel use annually by 2015 (baseline 2005).</p> <p>[EISA §246]: Install at least one renewable fuel pump at each Federal fleet fueling center by 2010.</p> <p>[EISA §141]: Federal agencies are prohibited from acquiring any light-duty motor vehicle or medium-duty passenger vehicle that is not a “low greenhouse gas emitting vehicle.” Alternatively, an agency may demonstrate that it has adopted cost-effective policies to reduce petroleum consumption to achieve a comparable reduction in GHGs.</p> <p>[EPAct 2005 §701]: Dual-fueled vehicles to be operated on alternative fuel unless waived.</p>
Renewable Energy Generation	Implement new renewable energy generation projects on agency property for agency use. [§2(b)]	Implement renewable energy generation projects on agency property. [§2(a)(ii)]	[EPAct 2005 §203]: Double count renewable energy produced on Federal or Indian lands and used on-site at Federal facilities.
Supply Chain GHG Emissions	[Indirect] In agency acquisition of goods and services, use of sustainable environmental practices, including energy-efficient products, is encouraged. [§2(d)]	Pursue opportunities with vendors and contractors to reduce GHG emissions. (§2(b)(i))	[EISA §526]: Federal agencies are prohibited from procuring synfuel unless its life-cycle GHG emissions are less than those for conventional petroleum sources.

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<i>Scope 3 Emissions</i>		<p>Implement transit, travel, training, and conferencing strategies to support low-carbon commuting and travel. [§2(b)(ii)]</p> <p>Implement innovative policies to address scope 3 emissions unique to agency operations. [§2(b)(iv)]</p>	
<i>Potable Water Consumption</i>	Reduce water consumption intensity 2% annually through FY 2015 or 16% total reduction by the end of FY 2015 (baseline FY 2007). [§2(c)]	Reduce 2% annually potable water consumption intensity through FY 2020 or 26% by the end of FY2020 (baseline FY 2007 water consumption). [§2(d)(i)]	
<i>Industrial, Landscaping, and Agricultural Water Consumption</i>	Reduce water consumption intensity 2% annually through FY 2015 or 16% total reduction by the end of FY 2015 (baseline FY 2007). [§2(c)]	Reduce industrial, landscaping, and agricultural water consumption by 2% annually or 20% by the end of FY 2020 (baseline FY 2010 industrial, landscaping, and agricultural consumption). [§2(d)(ii)]	
<i>Water Re-use</i>		Identify, promote, and implement water reuse strategies that reduce potable water consumption. [§2(d)(iii)]	
<i>Stormwater Management</i>		<p>Achieve EPA’s stormwater management objectives. [§2(d)(iv)]</p> <p>[EPA is to provide guidance on this requirement by December 4, 2009.]</p>	[EISA §438]: Maintain or restore, for Federal properties over 5,000 square feet, the property’s pre-development hydrology as to temperature, rate, volume, and duration of flow.
<i>Pollution Prevention</i>	Maintain cost effective waste prevention and recycling programs. [§2(e)]	Minimize generation of waste and pollutants through source reduction. [§2(e)(i)]	Source reduction is required through SARA Title III and waste minimization is required through RCRA generator requirements.
<i>Solid Waste Diversion</i>	Increase diversion of solid waste as appropriate. [§2(e)]	<p>Divert 50% of non-hazardous solid waste from disposal by the end of FY 2015. [§2(e)(ii)] Does not include diversion to waste-to-energy plants. [§7]</p> <p>Divert 50% of construction and demolition materials and debris from disposal by the end of FY 2015. [§2(e)(iii)]</p>	[Sites: Check state and local laws and regulations related to solid waste diversion.]
<i>Paper</i>	Use paper containing at least 30% postconsumer fiber content. [§2(d)]	<p>Acquire uncoated printing and writing paper containing at least 30% postconsumer fiber.</p> <p>Reduce printing paper use. [§2(e)(iv)]</p>	[Solid Waste Disposal Act, § 6002 and 40 CFR Part 247]: Purchase paper with the highest amount of postconsumer fiber practicable.

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<i>Toxic Materials and Chemicals</i>	Reduce acquisition, use, and disposal of toxic materials and chemicals. [§2(e)]	Reduce and minimize the quantity of toxic and hazardous chemicals and materials acquired, used, and disposed FY 2015. [§2(e)(v)]	[Pollution Prevention Act]: Federal facilities are required to deploy pollution prevention as the first choice in environmental management.
<i>Compostable and Organic Material</i>		Increase diversion of compostable and organic material from waste streams. [§2(e)(vi)]	
<i>Landscaping Management</i>		Implement pest management and other landscaping management practices. [§2(e)(vii)]	
<i>Chemical Use</i>	Reduce acquisition, use, and disposal of toxic materials and chemicals. [§2(e)]	Increase use of acceptable alternative chemicals and processes. [2(e)(viii)] Decrease chemical use to assist in achieving GHG reduction targets. [§2(e)(ix)]	[Montreal Protocol]: The reduction of most ozone-depleting substances also leads to a reduction in GHGs released.
<i>Sustainable Communities</i>		Participate in regional transportation planning and recognize existing community transportation infrastructure. [§2(f)(i)] Align Federal policies to increase the effectiveness of local planning for energy choices such as locally-generated renewable energy. [§2(f)(ii)] Ensure planning for new facilities/leases considers pedestrian-friendly sites near existing employment centers and accessible to public transit. [§2(f)(iii)] Identify and analyze impacts from energy use and alternative energy sources in EAs and EISs for new or expanded facilities. [§2(f)(iv)] Coordinate with regional programs for Federal, tribal, state, and local ecosystem, watershed, and environmental management. [§2(f)(v)]	

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<i>Energy Efficiency in New Construction and Major Renovations</i>		Achieve by 2030 zero-net-energy in buildings entering the planning process after 2020. [§2(g)(i)]	[EPAAct 2005 §109]: Achieve energy performance 30% beyond ASHRAE 90.1-2004. [EISA §433]: New Federal buildings and Federal buildings undergoing major renovations shall reduce their fossil fuel-generated energy consumption (baseline 2003) by 55% (2010), 65% (2015), 80% (20202), 90% (2025), and 100% (2030).
<i>High Performance Sustainable Buildings</i>	Ensure all new agency construction and renovation complies with the <i>Guiding Principles</i> . [§2(f)] Ensure 15% of existing Federal building inventory incorporate the <i>Guiding Principles</i> by 2015. [§2(f)]	Ensure all new construction, major renovation, or repair and alteration complies with the <i>Guiding Principles</i> . [§2(g)(ii)] Ensure 15% of existing facilities and building leases (above 5,000 gross square feet) meet the <i>Guiding Principles</i> by FY 2015. [§2(g)(iii)] Make annual progress towards 100% conformance with the <i>Guiding Principles</i> . [§2(g)(iii)]	[EISA §433]: Requires sustainable design principles be applied to the siting, design, and construction of buildings subject to the standards. [EISA §434]: Ensure major replacements of installed equipment, renovation, or expansion of existing space employ the most energy-efficient designs, systems, equipment, and controls life-cycle cost effective. [EISA §435]: As of December 19, 2010, Federal agencies are prohibited from leasing buildings that have not earned the ENERGY STAR label (some exemptions apply). [EPAAct 2005 §109]: Includes application of sustainable design principles for new buildings.

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<i>Advanced Metering and Measurement</i>			<p>[EPAAct 2005 §103]: Federal buildings must be metered by October 1, 2012 with data provided at least daily and electricity consumption measured hourly.</p> <p>[EISA §432]: Identify “covered facilities” constituting at least 75% of the agency’s facility energy use. Each covered facility must have an energy manager designated and meet additional requirements. Energy and water evaluations must be completed every 4 years for each facility. Facility energy managers are also responsible for commissioning equipment and establishing O&M plans for measuring, verifying, and reporting energy and water savings.</p> <p>[EISA §434(b)]: By October 16, 2016, each agency shall provide for equivalent metering of natural gas and steam.</p>
<i>Green Roofs</i>		Minimize consumption of energy, water, and materials through cost-effective, innovative strategies, such as highly reflective and vegetated roofs. [§2(g)(iv)]	
<i>Building Portfolio Management</i>		<p>Manage existing building systems to reduce consumption of energy, water, and materials. [§2(g)(v)]</p> <p>Identify alternatives to renovation that reduce existing assets’ deferred maintenance costs. [§2(g)(v)]</p> <p>Identify opportunities to consolidate and dispose of existing assets, optimize real property portfolio performance, and reduce environmental impacts. [§2(g)(vi)]</p>	
<i>Historic Buildings</i>		Promote long-term viability of agency-owned historic buildings by ensuring that rehabilitation utilizes best practices and technologies in retrofitting. [§2(g)(vii)]	

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<i>Sustainable Acquisition</i>	Purchase products that are: <ul style="list-style-type: none"> • Recycled, • Biopreferred • ENERGY STAR • FEMP-designated, • EPEAT • WaterSense (and other water-efficient) [§2(d)]	Ensure 95% of new contract actions for products and services are: <ul style="list-style-type: none"> • Energy efficient • Water efficient • Biobased-content • Environmentally preferable • Non-ozone depleting, • Recycled-content • Non-toxic or less-toxic than alternatives [§2(h)(i)]	[EPAAct 2005 §104]: Requires Federal agencies to incorporate energy efficiency criteria consistent with ENERGY STAR and FEMP-designated products for all procurements involving energy-consuming products and services. [EISA §525]: Requires procurement to focus on ENERGY STAR and FEMP-designated products. [EISA §524]: Encourages agencies to minimize standby energy use in purchases of energy-using equipment. <i>NOTE: Preferences in RCRA 6002, FSRIA 9002, and EPCRA not included.</i>
<i>Electronics Stewardship</i>	Ensure that 95% of agency electronic product acquisitions are EPEAT registered. [§2(h)] Enable the ENERGY STAR feature on agency computers and monitors. (§2(h)) Establish and implement policies to extend the useful life of agency electronic equipment. (§2(h)) Use environmentally sound disposal practices for electronics. (§2(h))	Ensure procurement preference for EPEAT-registered electronic products. [§2(i)(i)] Enable power management, duplex printing, and other energy-efficient or environmentally preferable features on all eligible DOE electronic products. [§2(i)(ii)] Employ environmentally sound disposition of excess or surplus electronic products. [§2(i)(iii)] Ensure procurement of ENERGY STAR and FEMP-designated electronic equipment. [§2(i)(iv)] Implement best management practices in energy-efficient management of servers and Federal data centers. [§2(i)(v)]	[EISA §431]: Reduce building energy intensity 3% annually through 2015, or 30% total reduction by 2015 (baseline 2003).
<i>Environmental Management Systems</i>	Implement EMSs to support goals of EO. [§3(b)] [See also CEQ <i>Instructions</i> 3/28/2007]	Continue implementation of EMSs; ensure they are maintained to achieve the goals of the EO. [§2(j)]	