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## *Bulletin*

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NASS and NAL

This Bulletin provides updates to the requirements of P&P 134.2 until revised.

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# Energy Water and Sustainability Update

## **1. Purpose**

This Bulletin provides an interim update to Policy and Procedures (P&P) 134.2 for Executive Order (EO) 13693 - Planning for Federal Sustainability in the Next Decade, it provides new links, it is an interim update to issuances on the conversion from Telephone and Utilities Maintenance System (TUMS) and Utility Vendors System (UTVN) to AXIS (AXIS is not an acronym), and it includes three Department of Energy (DOE) issuances and one issuance from the White House Council on Environmental Quality (CEQ). P&P 134.2 will be revised and reissued when all guidance, implementing instructions, plans, and other actions arising from the new EO are issued.

## **2. Background**

P&P 134.2 – Energy Water and Sustainability was issued November 12, 2013 based on EO 13423, EO 13514 and other then-current laws, EOs and guidance. EO 13693 - Planning for Federal Sustainability in the Next Decade, was signed March 19, 2015 extending and adding to the goals of previous EOs, as well as replacing and revoking EOs 13423 and 13514. Implementing Instructions for Executive Order 13693 - Planning for Federal Sustainability in the Next Decade were issued June 10, 2015.

DOE has changed its website and Agricultural Research Service (ARS) has updated its Microsoft SharePoint document handling software from SharePoint 2003 to SharePoint 2010 and migrated sites which changed links used in P&P 134.2. The USDA Biopreferred website has also changed.

In accordance with the Secretary's Administrative Strengthening Service Initiative, the USDA Office of Chief Financial Officer (OCFO) has awarded a contract to Ameresco to provide utility bill managed services to United States Department of Agriculture (USDA). This initiative is sponsored by OCFO, in partnership with the Office of Procurement and Property Management (OPPM). In the second quarter of fiscal year (FY) 2014, Ameresco's AXIS bill paying system replaced USDA's legacy TUMS/UTVN. All utilities are to be paid with AXIS including electricity, natural gas, fuel oil, propane, purchased steam, purchased chilled water, municipal water, sewer and solid waste.

DOE and CEQ have issued new rules and guidance on building efficiency, metering and sustainability.

## **3. Procedures**

[EO 13693 - Planning for Federal Sustainability in the Next Decade](#)

P&P 134.2 – Energy Water and Sustainability issued November 12, 2013 can be found at [www.afm.ars.usda.gov/ppweb/PDF/134-02.pdf](http://www.afm.ars.usda.gov/ppweb/PDF/134-02.pdf). New EO 13693 - Planning for Federal Sustainability in the Next Decade issued March 19, 2015 can be found at <https://www.federalregister.gov/articles/2015/03/25/2015-07016/planning-for-federal-sustainability-in-the-next-decade>. It has been published in the Federal Register.

The requirements of EO 13693 - Planning for Federal Sustainability in the Next Decade are adopted into P&P 134.2. References to EO 13423 - Strengthening Federal Environmental, Energy, and Transportation Management and EO 13514 - Federal Leadership in Environmental, Energy, and Economic Performance are replaced with the new requirements of EO 13693 - Planning for Federal Sustainability in the Next Decade. The Energy Policy Act of 2005 (EPACT 2005) and the Energy Independence and Security Act (EISA) of 2007 remain in force. Roles and responsibilities are the same with respect to the requirements of new EO 13693.

EO 13693 - Planning for Federal Sustainability in the Next Decade requires Agencies to:

1. Reduce building energy intensity by 2.5 percent annually through the end of FY 2025 based on FY 2015 using:
  - a. Virtual energy assessments
  - b. Demand response programs
  - c. Entering performance data monthly in Energy Star Portfolio Manager
  - d. Green Button where feasible. <http://energy.gov/data/green-button>
  - e. Optimizing space utilization
  - f. Transitioning to test-bed technologies
  - g. Conforming to city performance benchmarking and reporting
2. Improve data center energy efficiency at agency facilities by:
  - a. Ensuring the Chief Information Officer promotes data center efficiency
  - b. Install and monitor advanced energy meters in all data centers by FY 2018
  - c. Establish power usage effectiveness of 1.2 to 1.4 for new data centers and less than 1.5 for existing data centers.
3. All buildings must use renewable or alternative electric and thermal energy in the following percentages in the enumerated years:
  - a. Not less than 10 percent in FY 2016 and FY 2017
  - b. Not less than 13 percent in FY 2018 and FY 2019
  - c. Not less than 16 percent in FY 2020 and FY 2021
  - d. Not less than 20 percent in FY 2022 and FY 2023
  - e. Not less than 25 percent FY 2025 and thereafter
4. Ensure that the total building electrical energy that is renewable electric energy is:
  - a. Not less than 10 percent in FY 2016 and FY 2017
  - b. Not less than 15 percent in FY 2018 and FY 2019
  - c. Not less than 20 percent in FY 2020 and FY 2021
  - d. Not less than 25 percent in FY 2022 and FY 2023
  - e. Not less than 30 percent FY 2025 and thereafter
5. Prioritize the renewable electric portion of the targets in the following order of actions:

- a. Install funded renewable energy on site and retaining Renewable Energy Certificates (REC) or obtaining equal value replacement RECs.
  - b. Contract for the purchase of renewable energy that is on site or from a Federal facility and retain the RECs or obtain replacement RECs of equal value.
  - c. Purchase electricity and corresponding RECs or equal value replacement RECs
  - d. Purchasing RECs.
6. Include the following actions for alternative energy goals:
- a. Install thermal energy, retaining RECs or replacing them with RECs of equal value.
  - b. Install combined heat and power on Federal sites
  - c. Install fuel cells on Federal sites
  - d. Use energy from new small nuclear reactor technologies
  - e. Energy from carbon capture technology associated with energy generation
  - f. Other alternative energy that advances this policy
  - g. Certain DoD goals
7. Improve agency water use efficiency including stormwater management:
- a. Reduce agency potable water use by 36 percent by FY 2025 at 2 percent per year based on an FY 2007 baseline.
  - b. Install water meters and utilize water balance methods
  - c. Reduce Industrial, Landscape, and Agricultural water consumption by 2 percent per year through FY 2025, based on an FY 2010 baseline.
  - d. Install appropriate green infrastructure features to help stormwater and wastewater management.
8. If an agency operates 20 or more motor vehicles, improve fleet efficiency and management by:
- a. Determining the optimum fleet inventory and eliminating non-essential vehicles.
  - b. Reducing fleet-wide per-mile greenhouse gas emissions from fleet vehicles, relative to a FY 2014 baseline to reduce emissions:
    - i. Not less than 4 percent by the end of FY 2017
    - ii. Not less than 15 percent by the end of FY 2021
    - iii. Not less than 30 percent by the end of FY 2025.
  - c. Within two years, collect data from vehicle telematics on new vehicles.
  - d. Account for vehicles in an agency fleet management system and submit data the Federal Automotive Statistical Tool, the Federal Motor Vehicle Registration System and the Fleet Sustainability Dashboard system
  - e. Plan for the fleet to be 20 percent zero emission or plug in hybrid by FY 2020 and new acquisitions will be 50 percent zero emission or plug-in-hybrid by FY 2025.
  - f. Plan for charging stations or other refueling infrastructure for zero emission or plug in hybrid vehicles and vehicle-to-grid technology.
9. Improve building efficiency, performance and management by:
- a. Beginning in FY 2020 all new construction of Federal buildings greater than 5,000 Square Feet (SF) entering the planning process will be

- designed to achieve energy net zero and where feasible, water or waste water net zero by FY 2030.
- b. By FY 2025 have at least 15 percent of existing buildings over 5,000 SF comply with revised Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (revised guiding principles to be developed) and make progress towards 100 percent conformance.
  - c. Identify a percentage of existing buildings above 5,000 SF intended to be zero net energy water or waste by FY 2025 and actions to meet that target.
  - d. Include in leases of over 10,000 rentable SF:
    - i. Energy efficiency as either a requirement or an evaluation factor.
    - ii. Requirements for the lessor to disclose carbon emission or energy consumption.
  - e. Report scope three greenhouse gas emissions from new leased space.
  - f. Include strategies in planning for new buildings or leases for sustainable space usage and access to public transportation.
  - g. Include fleet charging stations in new buildings, major renovations, repair and alterations.
  - h. Include climate resilience in operation, repair, and renovation and new buildings.
10. Promote sustainable acquisition and procurement by including the following:
- a. Meet statutory mandates that require purchase of:
    - i. Recycle content products
    - ii. Energy efficient, Energy Star and FEMP-designated products
    - iii. Biopreferred and biobased designated products
  - b. Purchase sustainable products and services including:
    - i. Significant New Alternative Policy (SNAP) chemicals or alternatives to ozone depleting and high global warming hydrofluorocarbons.
    - ii. WaterSense certified products and services
    - iii. Safer Choice products
    - iv. SmartWay Transport partners and SmartWay products.
  - c. Purchase environmentally preferable products or services that:
    - i. Meet or exceed specifications, standards, or labels by EPA
    - ii. Meet environmental performance criteria developed by voluntary consensus standards bodies consistent with section 12(d) of the National Technology Transfer and Advancement Act of 1995 and Office of Management and Budget (OMB) Circular A-119.
  - d. Until an agency achieves 95 percent compliance with biobased and biopreferred purchasing requirements:
    - i. Establish an annual target for the number of contracts with biobased and biopreferred products in construction, operations and maintenance, food services, vehicle maintenance, and janitorial services
    - ii. Ensure that contractors submit timely reports on their biobased and biopreferred purchases.

- e. Reduce copier and printer paper use and acquire 30 percent postconsumer recycled content or higher paper.
11. Advance waste prevention and pollution prevention by:
    - a. Report in accordance with the Emergency Planning and Community Right-to Know Act of 1986.
    - b. Divert at least 50 percent of non-hazardous solid waste including food and compostable materials and net-zero waste and additional diversion opportunities.
    - c. Divert at least 50 percent of non-hazardous construction and demolition materials and debris.
    - d. Reduce toxic and hazardous chemicals and materials acquired used or disposed of that will help reduce greenhouse gas emissions.
  12. Implement performance contracts (Energy Savings Performance Contracts (ESPC) and Utility Energy Service Contracts (UESC) by:
    - a. Utilizing performance contracts to achieve energy and water conservation goals.
    - b. Fulfilling agency performance contracting goals by the end of FY 2016.
    - c. Providing agency targets for performance contracting in FY 2017 and thereafter.
  13. Promote electronics stewardship by
    - a. Ensuring procurement preference for environmentally sustainable electronics purchases.
    - b. Enable power management, duplex printing, and other energy efficient or environmentally sustainable features on eligible electronics.
    - c. Environmentally sound practices for disposal of electronics.
  14. Additional provisions
    - a. Duties of the Council on Environmental Quality (CEQ), OMB and other Agencies are established.
    - b. Requirements for personnel changes, training, and awards
    - c. Nitrogen Trifluoride is added to the list of greenhouse gasses
    - d. General Service Administration (GSA) to provide fleet support
    - e. Integrate into the agency Strategic Sustainability Performance Plan (SSPP)
    - f. EO 13423 and EO 13514 are revoked.
    - g. Establish interagency working groups.
    - h. Continue using Environmental Management Systems.
    - i. Reporting and disclosure requirements

### Implementing Instructions for Executive Order 13693

Implementing Instructions for Executive Order 13693 - Planning for Federal Sustainability in the Next Decade were issued June 10, 2015. They are available on line at

[https://www.whitehouse.gov/sites/default/files/docs/eo\\_13693\\_implementing\\_instructions\\_june\\_10\\_2015.pdf](https://www.whitehouse.gov/sites/default/files/docs/eo_13693_implementing_instructions_june_10_2015.pdf)

## Pay for All Utilities with AXIS

1. All utilities are to be paid for with AXIS including electricity, natural gas, fuel oil, propane, purchased steam, purchased chilled water, municipal water, sewer and solid waste.
2. All utility bills are to be sent to Ameresco at:  
  
U.S. DEPT OF AGRICULTURE c/o AMERESCO  
PO Box 9400  
SPOKANE WA 99209  
[AXIS.OPERATIONS@AMERESCO.COM](mailto:AXIS.OPERATIONS@AMERESCO.COM)  
Operations Center Number 866-940-2947  
Fax Number 509-343-5370
3. If any new users need access to AXIS please complete the “User Access Request” form at <https://e.arsnet.usda.gov/sites/FD/ea/Shared%20Documents/Utilities/AXIS%20forms/AXIS%20User%20Access%20Request%20Form.docx>, and send it with a copy of a bill to [axis.operations@ameresco.com](mailto:axis.operations@ameresco.com) and send it to the email address or fax number on the form. The National Finance Center (NFC) issues credentials for AXIS. A Navigation Guide is available on the AXIS website.
4. To add, modify or inactivate a utility account in AXIS please complete the Account Update Request at [https://e.arsnet.usda.gov/sites/FD/ea/Shared%20Documents/Utilities/AXIS%20forms/AXIS%20UTILITY%20ACCOUNT%20UPDATE%20REQUEST%20FORM\\_01232014%20\(2\).docx](https://e.arsnet.usda.gov/sites/FD/ea/Shared%20Documents/Utilities/AXIS%20forms/AXIS%20UTILITY%20ACCOUNT%20UPDATE%20REQUEST%20FORM_01232014%20(2).docx).
5. Ameresco manages payment of utility bills. Authorized persons at locations are responsible for starting and stopping utility service according to Acquisition and Property Division (APD) Alert – Utility Procurement - <http://www.afm.ars.usda.gov/acquisitions/pdffiles/APDAlert2013-01.pdf>. Locations are responsible for managing funds commitment documents, monitoring utility accounts in AXIS and contacting utilities. Do not do anything that will interrupt the timely flow of utility bills directly to Ameresco. Please contact the Business Service Center for assistance with funds commitment documents.
6. AXIS is not used to pay telephone bills. Use MetTel for telecommunications bills.
7. To contact NFC, all utility or telephone issues should be sent to [nfc.misc@nfc.usda.gov](mailto:nfc.misc@nfc.usda.gov). This email address is monitored by the Utility Supervisor and the Telephone Supervisor, rather than addressing an email to an individual that may be away from their desk. This will assure issues are answered in a timely manner.

## DOE Rulemaking

Meet 30 percent better than American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) Standard 90.1-2010 for designs that begin design for construction after July 9, 2014 but before November 6, 2016. A new DOE rule published in the Federal Register at 80 FR 68757 requires that all new Federal buildings, for which design for construction began on or after November 6, 2016, meet 30% below ASHRAE 90.1-2013. The text of the rule provides alternatives if it is not life cycle cost effective to meet these standards.

Text from 79 Federal Register (FR) 61569:

§433.100 Energy efficiency performance standard.

(3) All Federal agencies shall design new Federal buildings that are commercial and multi-family high-rise residential buildings, for which design for construction began on or after July 9, 2014, to:

(i) Meet ASHRAE 90.1-2010, (incorporated by reference, see §433.3); and

(ii) If life-cycle cost-effective, achieve energy consumption levels, calculated consistent with paragraph (b) of this section, that are at least 30 percent below the levels of the ASHRAE Baseline Building 2010.

(b) Energy consumption for the purposes of calculating the 30 percent savings shall include space heating, space cooling, ventilation, service water heating, lighting and all other energy consuming systems normally specified as part of the building design except for receptacle and process loads.

(c) If a 30 percent reduction is not life-cycle cost-effective, the design of the proposed building shall be modified so as to achieve an energy consumption level at or better than the maximum level of energy efficiency that is life-cycle cost-effective, but at a minimum complies with paragraph (a) of this section.

Text from 80 FR 68757

433.11 (a)

(4) All Federal agencies shall design new Federal buildings that are commercial and multi-family high-rise residential buildings, for which design for construction began on or after November 6, 2016 to:

(i) Meet ASHRAE 90.1-2013, (incorporated by reference, see § 433.3); and

(ii) If life-cycle cost-effective, achieve energy consumption levels, calculated consistent with paragraph (b) of this section, that are at least 30 percent below the levels of the ASHRAE Baseline Building 2013.

(b) Energy consumption for the purposes of calculating the 30 percent savings requirements shall include the building envelope and energy consuming systems normally specified as part of the building design by ASHRAE 90.1 such as space heating, space cooling, ventilation, service water heating, and lighting, but shall not include receptacle and process loads not within the scope of ASHRAE 90.1 such as specialized medical or research equipment and equipment used in manufacturing processes.

The definition in the rule says “*Design for construction* means the stage when the energy efficiency and sustainability details (such as insulation levels, HVAC systems, water-using systems, etc.) are either explicitly determined or implicitly included in a project cost specification.”

### DOE Guidance - Updated Federal Building Metering Guidance

Guidance at <http://energy.gov/eere/femp/downloads/federal-building-metering-guidance-usc-8253e-metering-energy-use> contains the following instructions:

1. Broadens the 2006 metering guidance.
2. Agency metering plans are to be submitted by November 2015.
3. Recommends how to identify and meter “appropriate” buildings.
4. Almost all buildings are “appropriate.”
5. Prioritize implementation, largest first.
6. Requires energy and water meters.
7. All new buildings must be metered.
8. Incorporate metered data into tracking systems.
9. Guidance on Green Button is being developed.

DOE issued Metering Best Practices: A Guide to Achieving Utility Resource Efficiency. It can be found on line at <http://energy.gov/sites/prod/files/2015/04/f21/mbpg2015.pdf>.

### New Guiding Principles for Sustainable Federal Buildings

New Guiding Principles for Sustainable Federal Buildings were issued by the Council on Environmental Quality on 2/26/2016 and were published in the Federal Register 3/2/2016 at 81 FR 10843. The Guiding Principles for Sustainable Federal Buildings and Associated Instructions can be found at [https://www.whitehouse.gov/sites/default/files/docs/guiding\\_principles\\_for\\_sustainable\\_federal\\_buildings\\_and\\_associated\\_instructions\\_february\\_2016.pdf](https://www.whitehouse.gov/sites/default/files/docs/guiding_principles_for_sustainable_federal_buildings_and_associated_instructions_february_2016.pdf) and Determining Compliance with the Guiding Principles for Sustainable Federal Buildings can be found at [https://www.whitehouse.gov/sites/default/files/docs/determining\\_compliance\\_with\\_the\\_guiding\\_principles\\_for\\_sustainable\\_federal\\_buildings\\_february\\_2016.pdf](https://www.whitehouse.gov/sites/default/files/docs/determining_compliance_with_the_guiding_principles_for_sustainable_federal_buildings_february_2016.pdf). This applies to all new construction and modernization over 5,000 square feet. This replaces the Five Guiding Principles for Sustainable High Performance Federal Buildings.

### The following links in P&P 134.2 have changed

2.2.4 Establishing Baseline and Meeting Water Conservation Goals of Executive Order 13423 [http://www1.eere.energy.gov/femp/pdfs/water\\_guidance.pdf](http://www1.eere.energy.gov/femp/pdfs/water_guidance.pdf)

Change to

[https://www.fedcenter.gov/kd/go.cfm?destination=ShowItem&Item\\_ID=14213](https://www.fedcenter.gov/kd/go.cfm?destination=ShowItem&Item_ID=14213)

2.3.8 Biobased Product Procurement Preference Program DR 5023-002 -

<http://www.ocio.usda.gov/directives/doc/DR5023-002.pdf>

Change to  
USDA Green Purchasing Affirmative Procurement Program  
<http://www.dm.usda.gov/energyandenvironment/greenpurchasing/gpappjuly3final.htm>

3.5.16 and 3.6.28...Agency VAM Plan,  
<http://www.afm.ars.usda.gov/acquisitions/pdffiles/APDALERT2012- P07P.pdf>

Change to  
Personal Property Alerts, 2013-P01 - Vehicle Allocation Method (VAM)  
Vehicle Replacement Plan  
<http://www.afm.ars.usda.gov/property/alerts>

Page 38 Green cleaning products can be found in the Biopreferred catalog at  
<http://www.catalog.biopreferred.gov/bioPreferredCatalog/faces/jsp/catalogLanding.jsp>

Change to  
<http://www.catalog.biopreferred.gov>

Page 56 71 FR 70275 (Re: ASHRAE 90.1-2004)  
<http://www.thefederalregister.com/d/p/2007-12-21-E7-24615>

Change to  
<https://www.federalregister.gov/citation/71-FR-70275>

Page 56 ARS Energy Awareness SharePoint site  
<https://arsnet.usda.gov/sites/AFM/FD/EA/default.aspx>

Change to  
<https://e.arsnet.usda.gov/sites/FD/ea/default.aspx>

Page 57 DOE “You Have the Power” Campaign  
<http://www1.eere.energy.gov/femp/services/yhpt/index.html>

Delete

Page 57 Energy Savings Assessment Training Manual  
[http://www1.eere.energy.gov/femp/pdfs/esa\\_manual.pdf](http://www1.eere.energy.gov/femp/pdfs/esa_manual.pdf)

Delete

Page 57 FEMP energy-efficient equipment  
<http://www1.eere.energy.gov/femp/procurement/>

Change to  
<http://energy.gov/eere/femp/find-product-categories-covered-efficiency-programs>

Page 58 FEMP Water Efficiency Resources  
[http://www1.eere.energy.gov/femp/program/waterefficiency\\_resources.html](http://www1.eere.energy.gov/femp/program/waterefficiency_resources.html)

Delete

Page 58 Locating alternative fuel stations by city/state/zip  
<http://www.e85refueling.com/>

Change to  
<http://www.afdc.energy.gov/locator/stations/>

Page 58 UESC

<http://www.eere.energy.gov/femp/financing/uescs.html>

Change to

<http://energy.gov/eere/femp/utility-energy-service-contracts>

Page 58 USDA Departmental Regulation 3170-001 – End User Workstation Standards

<http://www.ocio.usda.gov/directives/doc/DR3170-001.htm>

Delete

Page 59 USDA Strategic Sustainability Performance Plan (SSPP) 2012

<http://www.dm.usda.gov/emd/>

Change to

<http://www.dm.usda.gov/emd/sspp.htm>

Page 59 U.S. EPA, 2004 Guidelines for Water Reuse, EPA-625/R-04/108, August 2004

<http://www.epa.gov/ord/NRMRL/pubs/625r04108/625r04108.htm>

Change to

<http://www.epa.gov/agriculture/awat.html>

Page 59 Utility Demand Side Incentives

<http://www1.eere.energy.gov/femp/pdfs/oliver.pdf>

Delete

Page 59 “What Makes a Sustainable Building” Poster

<https://arsnet.usda.gov/sites/AFM/FD/EA/Shared%20Documents/Sustainability/A%20Sustainable%20Building.pptx>

Change to

<https://e.arsnet.usda.gov/sites/FD/ea/Shared%20Documents/Sustainability/A%20Sustainable%20Building.pptx>

#### **4. Definitions, Information, and Acronyms**

For definitions, information, and acronyms see P&P 134.2 – Energy Water and Sustainability at [www.afm.ars.usda.gov/ppweb/PDF/134-02.pdf](http://www.afm.ars.usda.gov/ppweb/PDF/134-02.pdf)

and EO 13693 - Planning for Federal Sustainability in the Next Decade at

<https://www.federalregister.gov/articles/2015/03/25/2015-07016/planning-for-federal-sustainability-in-the-next-decade>.

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