

A Review of Federal Agency Compliance with Energy-Efficient Procurement Laws

**By Steve Capanna, Selin Devranoglu and Joe Loper
Alliance to Save Energy**

With support from the Federal Energy Management Program

May 2008



**ALLIANCE TO
SAVE ENERGY**
Creating an Energy-Efficient World

Table of Contents

Executive Summary	3
Background	4
Contract Solicitations.....	6
Procurement Staff	9
Federal Supply Agencies	12
Vendors' Role	17
Recommendations.....	20
Training:.....	20
Federal Purchasing Websites:	21
Tracking Compliance:.....	22
Enforcement:.....	23
Conclusion	24

Acknowledgements

This report is one of a series of studies prepared by the Alliance to Save Energy under contract with the US Department of Energy, Federal Energy Management Program. The authors would like to thank Matt Gray, Shawn Herrera, Will Lintner, Don Mauritz, Cyrus Nasser, and Chris Payne for their support and encouragement. However, all opinions expressed in this report are strictly those of the Alliance staff. We also thank Phil Coleman, Jeff Harris, Nils Petermann and the members of the Federal Procurement Working Group for their review and helpful comments.

Sponsorship: This report is based upon work supported by the Department of Energy, Federal Energy Management Program under Award Number DE-AC01-05EE-11123.

Disclaimer: This publication was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States.

Executive Summary

The Energy Policy Act of 2005 (EPA 2005) required federal agencies to purchase energy-efficient products. These requirements were not new, but rather a codification into law of existing Executive Orders. Nevertheless, the Alliance to Save Energy's research suggests compliance remains extremely low. In fact, of 164 examined government solicitations that included requests for products covered by this legislation, only seven percent appeared to be fully compliant.

The Alliance also talked to 25 government procurement officials, many of whom were listed as contacts on solicitations for products covered by the EPA 2005 regulation. Only two of those 25 government employees knew about the energy-efficient procurement requirement in detail and believed they were partly responsible for ensuring the requirement was followed. The General Services Administration (GSA) and the Defense Logistics Agency (DLA), the two main government-run websites that sell exclusively to government agencies, showed similar levels of non-compliance, failing to sell any compliant models in 65 percent and 80 percent of the covered product categories, respectively.

Failure to fully comply with federal requirements for energy-efficient purchasing wastes money and increases emissions of carbon and other pollutants. Non-compliance with the energy-efficiency procurement regulations could be wasting as much as 25 trillion Btu of site energy per year.¹ In 2006, on average, federal buildings paid \$16.62 per million Btu they used,² so 25 trillion Btu represents \$415 million of wasted taxpayer money at 2006 prices (about \$435 million at today's prices.³) That wasted energy also results in the emission of about 840 thousand metric tons of carbon equivalent annually (about 3 million metric tons of carbon dioxide).⁴

Federal employees who purchase inefficient energy using products and services and federal supply agencies that supply those products may not be aware of their obligations under the law. This highlights the need for a greater focus on education and training by FEMP and other agencies, and underlines the need for more resources and attention to this provision. Where federal purchasers are already aware of the statutory requirements, but continue to ignore the law, there may be a need for stronger enforcement and penalties.

¹ Jeffrey Harris & Francis Johnson, *Potential Energy, Cost, and CO₂ Savings from Energy-Efficient Government Purchasing*, Lawrence Berkeley National Laboratory and Stockholm Environmental Institute, Proceedings of the 2000 ACEEE Summer Study on Energy-Efficient Buildings, August 2000, Table Table 2, p.11; Federal Energy Management Program, *Annual Report to Congress on Federal Government Energy Management and Conservation Programs, Fiscal Year 2006 (Draft)*, US Department of Energy, November 28, 2007, Table A-3, p.74, http://www1.eere.energy.gov/femp/procurement/eep_related_pubs.html.

² Federal Energy Management Program, *Annual Report to Congress on Federal Government Energy Management and Conservation Programs, Fiscal Year 2006 (Draft)*, Tables A-4 and A-6, pp.75, 76.

³ Alliance to Save Energy calculations using data from FEMP, *Annual Report to Congress*, Tables A-4 and A-6, pp.75-76; and Energy Information Administration, *Short-Term Energy and Summer Fuels Outlook*, April 8, 2008, <http://www.eia.doe.gov/emeu/steo/pub/contents.html>.

⁴ Calculated using supporting data to FEMP, *Annual Report to Congress*.

To help FEMP and the federal agencies achieve substantial energy and cost savings, while meeting the energy-efficient procurement requirements of federal law, the concluding section of this report offers several recommendations in the areas of:

- training,
- website enhancements,
- tracking compliance, and
- enforcement

Background

The federal government is the single largest purchaser of energy-consuming products in the world,⁵ purchasing at least \$10 billion worth each year,⁶ representing 10 percent of total energy-consuming product sales.⁷ As such, it is in a unique position to influence the market through its purchasing behavior. By purchasing energy-efficient products, it can save money, moderate its energy consumption and reduce its greenhouse gas (GHG) emissions. A 2000 study estimated that if the federal government purchased exclusively energy-efficient products, it would save approximately 25 trillion Btu per year of site energy consumption in 2010, about six percent of 2002 federal building energy consumption.⁸ Moreover, it can significantly boost sales of energy-efficient equipment – both through its demand and by demonstrating to consumers that Energy Star qualified and Federal Energy Management Program (FEMP)-designated products are both cost-effective and reliable – creating economies of scale for manufacturers of those products and lowering production and distribution costs. And since the government is such an important customer, companies will be more likely to develop, market, and sell energy-efficient products at competitive prices to capitalize on the enormous sales opportunity.

Section 104 of EAct 2005 required federal agencies to procure only Energy Star-qualified and FEMP-designated products, when such classifications exist. Exceptions must be justified in writing by the head of the agency. The only accepted reasons to not purchase compliant products are if it is determined that: 1) Energy Star and FEMP products are not life-cycle cost-effective taking energy cost savings into account; 2) no Energy Star or FEMP product is reasonably available that meets the functional requirements of the agency; or 3) if the product is being purchased for combat-related activities.

⁵ Federal Energy Management Program, “Energy-Efficient Products: Criteria for Developing FEMP’s Efficiency Recommendations,” January 31, 2007, <http://www1.eere.energy.gov/femp/procurement/>.

⁶ Federal Energy Management Program, *Selling Energy-Efficient Products to the Federal Government*, US Department of Energy, Energy Efficiency and Renewable Energy, August 2003, p.1.

⁷ Harris & Johnson, *Potential Energy, Cost, and CO2 Savings from Energy-Efficient Government Purchasing*, Lawrence Berkeley National Laboratory and Stockholm Environmental Institute, Proceedings of the 2000 ACEEE Summer Study on Energy-Efficient Buildings, August 2000, http://www1.eere.energy.gov/femp/procurement/eeep_related_pubs.html.

⁸ Harris & Johnson, *Potential Energy Cost, and CO2 Savings from Energy-Efficient Government Purchasing*, Table 2, p.11; Federal Energy Management Program, *Annual Report to Congress on Federal Government Energy Management and Conservation Programs, Fiscal Year 2006 (Draft)*, US Department of Energy, November 28, 2007, Table A-3, p.74.

This requirement had previously been included in President Clinton's Executive Order 13123 and subsequently was added to the Federal Acquisition Regulations (FAR).⁹ The Energy Policy Act of 1992 (EPAct 1992) had also called for guidelines that would encourage efficient procurement,¹⁰ but until the passage of EPAct 2005, Congress had not codified those requirements into law. In order to better track compliance, and to ensure the burden of proof was on non-compliance, rather than compliance, EPAct 2005 also required the heads of agencies to submit written justifications for non-compliant purchases.

The proposed rulemaking issued by the Department of Energy (DOE) on Section 104 required that a report on the number, monetary value and description of the covered products granted exceptions, as well as the reason for their exceptions, be included in agency annual reports on energy management to the President and in agency reports to the Office of Management and Budget (OMB) as part of its Environmental Stewardship Score Card.¹¹

Section 104 of EPACT 2005 also states:

“The General Services Administration or the Defense Logistics Agency shall supply only Energy Star products or FEMP designated products for all product categories covered by the Energy Star program or the Federal Energy Management Program, except in cases where the agency ordering a product specifies in writing that no Energy Star product or FEMP designated product is available to meet the buyer's functional requirements, or that no Energy Star product or FEMP designated product is cost-effective for the intended application over the life of the product, taking energy cost savings into account.”

Despite the straightforward nature of the above provision, there has been considerable debate as to whether or not the law requires affirmative compliance actions by GSA and DLA as well as by federal agency purchasers. Both GSA and DLA have resisted excluding non-compliant products from their listings, claiming their mandate is to supply whatever products agencies want, not to enforce government regulations, and that enforcing such a law would significantly hurt their business.

GSA's largest consumer is the Department of Defense (DOD), which represents 70 percent of its sales. DLA, as a component of DOD, also sells primarily to DOD. Since combat-related purchases are excluded from the energy-efficient procurement regulation,

⁹ President William J. Clinton, *Executive Order 13123 – Greening the Government Through Efficient Energy Management*, Section 403 (b), June 8, 1999, <http://www1.eere.energy.gov/femp/pdfs/eo13123.pdf>.

¹⁰ “The Energy Policy Act of 1992,” Section 161, <http://thomas.loc.gov/cgi-bin/query/F?c102:1:./temp/~c102qd2afk:e228596>.

¹¹ Department of Energy, Office of Energy Efficiency and Renewable Energy, “Federal Procurement of Energy Efficient Products,” Notice of Proposed Rulemaking, *Federal Register*, Vol. 72, No. 117, pp. 33696-33700, June 19, 2007.

GSA and DLA fear any attempt to make it more difficult to purchase energy-inefficient products would unduly burden their main customer.¹²

This argument has been implicitly supported by the Notice of Proposed Rulemaking issued by FEMP pertaining to Section 104 of EPAct 2005, which, though it mentions GSA and DLA's responsibility under the law in the Introduction and Background section, does not mention this aspect of the statute in its proposed additions to the Code of Federal Regulations.¹³ The recently released Final Rule on the FAR sections that pertain to energy-efficient procurement also makes no mention of the burden the law puts on GSA and DLA.¹⁴

Nonetheless, given that the language and intent of Section 104 are specific and unequivocal, GSA and DLA's interpretation of their responsibilities – or lack thereof – is not consistent with the law.

To gauge federal agency compliance with the EPAct 2005 provisions, the Alliance to Save Energy recently examined selected entries from two of the federal government's purchasing mechanisms – namely federal solicitations listed on FEDBIZOPPS.GOV and the GSA and DLA purchasing web sites.

Contract Solicitations

From July 13 through September 7, 2007, the Alliance searched FEDBIZOPPS, the website that lists federal government procurement solicitations of more than \$25,000, for "relevant" solicitations posted following the passage of EPAct 2005 (those that included at least one product or piece of equipment subject to Energy Star or FEMP specifications).

The Alliance identified 164 relevant solicitations and examined them to see if they contained any reference to the energy efficiency procurement regulation from EPAct, looking for four specific types of references to the purchasing requirements:

- listing energy-efficiency specifications for covered products;
- specifying that all products provided must comply with Section 104 of EPAct 2005;
- specifying that all products provided must comply with FAR Sections 23.203-23.206; or
- specifying that all products supplied must be Energy Star qualified or FEMP-designated.

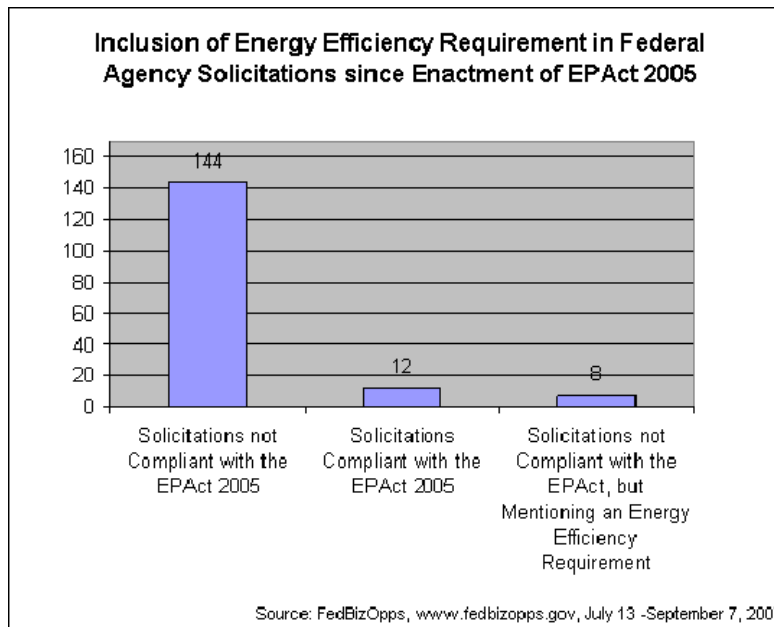
¹² Private discussions with representatives from DLA and GSA at GovEnergy 2007 conference in New Orleans, from August 6-8, 2007. While we sympathize with DLA and GSA's position, in most cases, there is little reason for DOD to prefer an inefficient product to an efficient (compliant) product, even when the purchase is being made for combat-related activities. Simply because DOD is allowed to purchase non-compliant products does not mean that it should prefer them.

¹³ Federal Register, Volume 72, No. 117, June 19, 2007, pp. 33696-33700.

¹⁴ Federal Register, Volume 72, No. 225, November 23, 2007, pp.65868-65873.

Of the 164 relevant solicitations we examined on FEDBIZOPPS, only 12 (seven percent) directly referenced the energy efficiency procurement regulation, using one of the four types of references, above.¹⁵ An additional eight solicitations (five percent) mentioned energy efficiency, but not in a way we considered to be compliant with the requirement. For instance, some specified they sought an “energy-efficient” product and left it at that, while others requested a “green roof,” specified they wanted LEED “gold” certification, or declared they expected “as many environmentally preferable measures as possible.” Even if we assume that all solicitations that mention energy efficiency in any way are compliant, that still only equals 12 percent of the solicitations examined.

Most of the solicitations that explicitly complied with the regulations mentioned Energy Star-qualified and FEMP-designated products. One or two referenced the relevant FAR subsection,¹⁶ and a few mentioned that the products supplied must comply with the provisions found in EPO – which places a considerable burden on the vendor to determine what this requirement means.



The six largest federal procuring agencies are Department of Defense (DOD) (comprised of the Navy, Army, Air Force, Defense Logistics Agency (DLA), and Defense Contracting Agency (DCA)), DOE, National Aeronautics and Space Administration (NASA), GSA, Department of Veterans Affairs (VA), and Department of Transportation (DOT). Among these six agencies, of the 89 different solicitations examined, only five

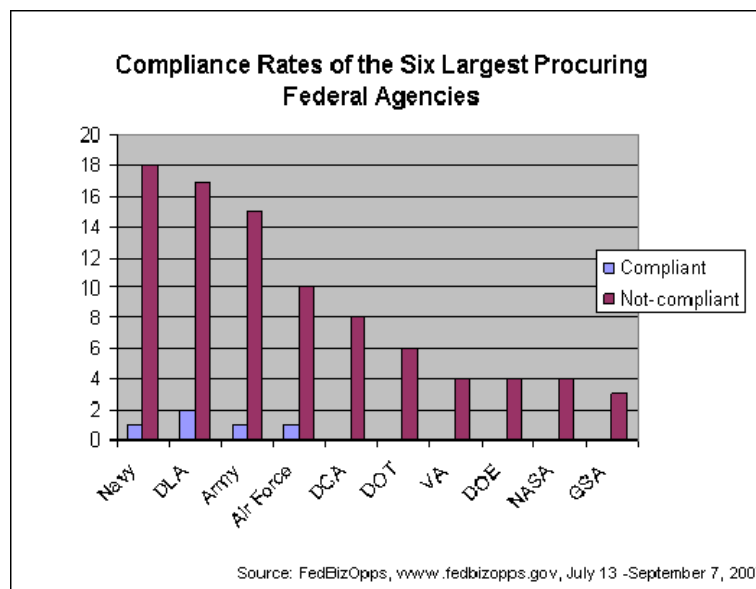
¹⁵ There is a margin of error with this and other numbers in this paragraph, since we sometimes struggled to determine if a given product was covered by FEMP or Energy Star specifications. We discuss this problem in greater detail below.

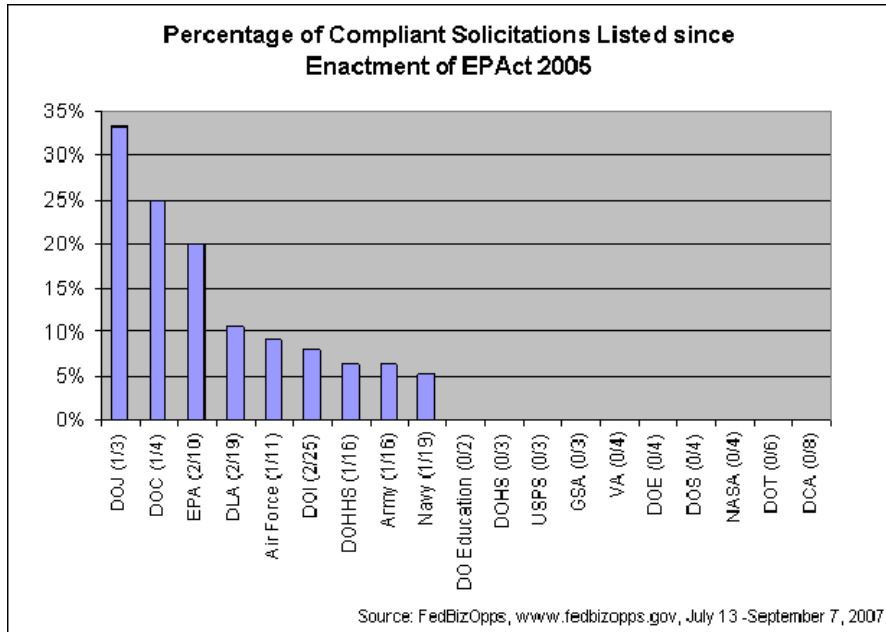
¹⁶ The FAR is the government document that lists all of the regulations government procurements are supposed to follow.

(six percent) were fully compliant. Three additional solicitations referenced energy efficiency, but not in a manner consistent with the requirement.

Although the numbers in our sample are small for any single government agency, no agency had higher than a 33 percent compliance rate in the solicitations examined. The Department of Justice only listed three relevant solicitations, one of which complied. The Department of Commerce (one of four) and the Environmental Protection Agency (two of 10) had the next highest compliance rates. Several agencies did not have any compliant solicitations among the limited number we studied.

Furthermore, it proved impossible for us to verify that vendors were supplying compliant products even where solicitations clearly stated the requirements (or, conversely, whether the products supplied in response to non-compliant solicitations might have been energy-efficient and compliant, anyway). While FEDBIZOPPS posts very detailed solicitations from every agency, lists which vendor has been awarded which contract, and reports how much the agency is paying for the products, it does not specify which products the vendor is supplying to meet a contract.





This lack of transparency could be a serious concern. Since familiarity with the regulation by government officials is low (see the “Procurement Staff” section, below), procurement agents may not be able to double-check winning bids to ensure compliance with the regulations, even when compliant products are specified in a solicitation. Unless there is an easy way for third-parties (like FEMP, the Office of Federal Procurement Policy (OFPP), advocacy agencies, or other vendors) to review the specifications of winning bids, it will be very difficult to estimate compliance with any confidence.¹⁷

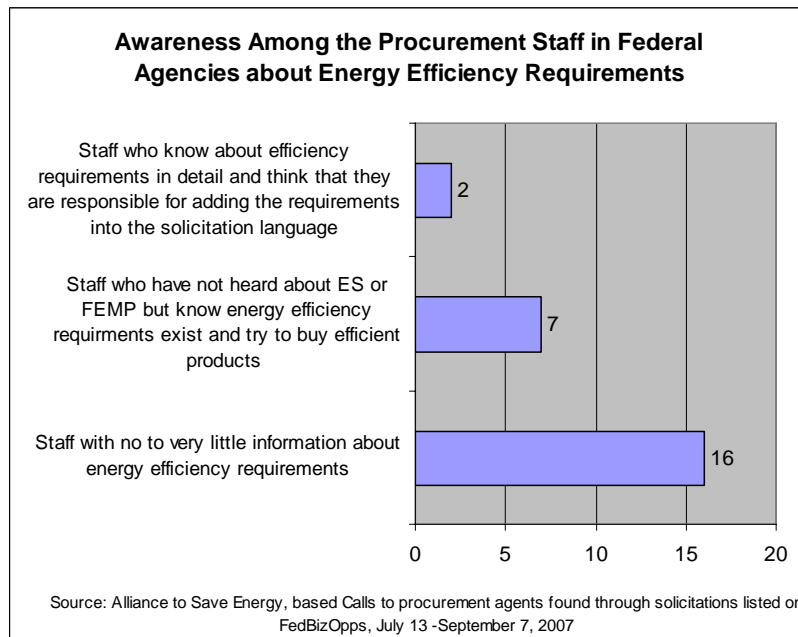
Procurement Staff

The Alliance also contacted a sample of procurement officials named on solicitations that included at least one product covered by Energy Star or FEMP to gauge their familiarity and compliance with the energy-efficient regulations. The 25 facility-level procurement officials to whom we spoke gave several types of responses:

- Two of the 25 officials said they knew about the efficiency requirements in detail and acknowledged they were responsible for adding the requirements into the solicitation language.
- Seven officials said they were vaguely familiar with the regulations and had, at minimum, mentioned the legislation, regulation or, more frequently, an efficiency requirement in one of their solicitations.

¹⁷ As we discuss in the “Vendors” section, below, vendors we talked to assured us that deliberate deception on the part of the vendors would be extremely unlikely, as the benefits of winning a few more contracts would be outweighed by the danger of losing the trust of government agencies, who represent a large share of most of these companies’ sales portfolios. Still, vendors could make mistakes, too, and it would be reassuring to have verification that solicitations requesting compliant products are being met.

- Sixteen said they were not familiar with the energy efficiency procurement regulations or had heard about them but were unsure which products they applied to.



None of the personnel (including the two people who were familiar with the requirements in detail) used a standard clause to ensure energy-efficient purchases, and none of them knew exactly which products were covered by Energy Star and FEMP. The procurement agents who were more familiar with the requirements tended to have received notification of the energy-efficiency provision from upper management, along with instructions on how to comply with them.

Of the procurement agents surveyed, most seemed to be vaguely familiar with energy-efficiency regulation, but felt it was low on the totem pole of regulations with which they must comply. For the most part, they said they procure whatever the employee responsible for the solicitation requests, without double-checking to ensure it's compliant with regulations. Arguing that they aren't engineers, several procurement agents said they wouldn't know whether a product is energy-efficient or not, or whether there could be a good reason why a FEMP or Energy Star product wouldn't meet the needs of the agency. Given the often urgent need for the products being procured, procurement officials tend to be risk-averse and much more likely to order a familiar (and inefficient) product than an efficient (but unknown) one.

Based on the few conversations we had with the employees (frequently engineers) who write the specifications for many of the products covered by Energy Star and FEMP, they are frequently unaware of the procurement regulations, instead trusting the procurement experts to ensure the solicitations comply with all of the relevant FAR regulations. The lack of specifications for energy-efficient products is especially disappointing since both FEMP and Energy Star have developed clear technical specifications and sample

procurement language which government purchasers could insert verbatim into their solicitations, and which would ensure vendors knew they were obligated to supply compliant products.¹⁸

This general lack of familiarity with the provisions is in keeping with anecdotal evidence from other sources familiar with green procurement. For instance, at FEMP's 2007 GovEnergy conference, a contractor giving a presentation mentioned that while they were trying to instill green procurement practices into the day-to-day functioning of government, they would still frequently encounter procurement agents to whom the concept of energy-efficient procurement was still foreign.¹⁹

An effective training program could help educate procurement staff. While FEMP had an energy-efficient procurement training program, it was discontinued in 2006 due to budgetary constraints. FEMP has expressed willingness to restart the program, but its ability to do so depends on sufficient funding. FEMP currently directs callers looking for efficient procurement training to other organizations that offer similar services, such as ASHRAE.²⁰ GSA also hopes to offer awareness training on the energy-efficiency procurement requirements to both customer agencies and vendors.²¹ And Executive Order 13423 specifies that agencies must establish programs for environmental management training.²² Some agencies have already developed training that may include discussion of green procurement regulations.²³ But at least one government employee at a FEMP Interagency Procurement Working Group (PWG) meeting expressed her reservations about the effectiveness of training efforts to date.²⁴

One common justification for the lack of compliance with the energy-efficiency purchasing requirements given by both procurement agents and experts at DOE and the OFPP was the lack of a mandatory FAR clause that could automatically be inserted into solicitations.²⁵ Since these mandatory clauses exist for many other FAR sections, many procurement agents felt the absence of a clause for sections 23.203-23.206 indicated this issue was not as important as the sections for which FAR clauses had been written.

¹⁸ Energy Star, "Purchasing & Procurement,"

http://www.energystar.gov/index.cfm?c=bulk_purchasing.bus_purchasing; and Federal Energy Management Program, "Energy-Efficient Products," U.S. Department of Energy, Energy Efficiency and Renewable Energy, July 6, 2006, http://www1.eere.energy.gov/femp/procurement/eep_modellang.html.

¹⁹ Linda Mesaros, "Acquisition Implementation Tools," Mesaros Associates, Inc., GovEnergy 2007 presentation, August 9, 2007, http://www.govenergy.com/pdfs/lpl/Mesaros_LPLtrack_S8.pdf.

²⁰ Private conversation with Joe Konrade; FEMP Planning, Analysis, Reporting, Communications and Coordination Team; September 14, 2007.

²¹ GSA plans to offer its first training course later in 2008. Private correspondence, Wendell Garner, GSA, April 24, 2008.

²² President George W. Bush, *Executive Order 13423: Strengthening Federal Environment, Energy, and Transportation Management*, Section 3 (c), January 24, 2007, <http://www.whitehouse.gov/news/releases/2007/01/20070124-2.html>.

²³ See, for example, Trainex: The Training Exchange Website, "Purchase Card Training, Offered by the U.S. EPA Office of Acquisition Management," April 2, 2007, <http://www.trainex.org/offeringlist.cfm?courseid=268>.

²⁴ Meeting Minutes of FEMP Interagency Procurement Working Group Meeting, January 31, 2008.

²⁵ Private correspondence with Richard Langston, DOE and Amy Williams, OFPP.

This obstacle has since been removed, with the publication by The Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council of a final rule adding a mandatory clause to the FAR regulations, applicable to solicitations for Energy Star and FEMP-designated products, including those products purchased as part of construction, renovation or maintenance contracts. The clause came into effect on December 24, 2007,²⁶ subsequent to the completion of the bulk of our research. Although we performed a summary check of solicitations posted after December 24, 2007 during the week of January 28, 2008 and found no mention of the clause in any relevant solicitations, it is almost certainly too early to draw any meaningful conclusions. While the impact the inclusion of this clause will have on compliance remains unclear, it should be monitored closely over the next several months.

One factor that likely contributes to procurement staffs' poor knowledge of and appreciation for the energy-efficiency procurement requirements is the highly stressful nature of their job. Frequently, they are asked to replace broken equipment or purchase new equipment immediately. Delays in obtaining equipment can hinder facilities' operations, costing the agency money, and maybe costing the staffer his or her job. These time constraints combined with the litany of other regulations procurement staff must follow help explain why compliance is so poor.

Federal Supply Agencies

The Alliance also reviewed the GSA and DLA purchasing web sites, which list pre-competed products available for purchase by government agencies, for compliance with statutory requirements. For some product categories, these sites may be as important or more important than agency solicitations, since any federal employee with a purchasing card can use these sites. In Fiscal Year 2004, \$17 billion worth of equipment and services were bought using government purchasing cards, from GSA and DLA or from commercial sources. Over 300,000 government employees had a purchasing card (one out of every 1,000 people in the country!). These employees, combined, made 26 and a half million transactions with those cards.²⁷ Although agencies are required to provide appropriate training to their purchase card holders, it would be surprising if the knowledge of the typical purchasing card holder was appreciably higher than that of dedicated procurement staff who, as discussed above, were generally unfamiliar with the energy-efficiency requirements.²⁸

Even the best-intentioned and best-informed government employee with a purchasing card may have difficulty procuring the correct products to satisfy the energy efficiency purchasing requirements. It is not always immediately clear whether a given product is

²⁶ Federal Register, Volume 72, No. 225, November 23, 2007, pp.65868-65873.

²⁷ Department of Energy, "Affirmative and Environmentally Preferable Procurement: Training for Purchase Card Users and Approving Officials," Federal Recycled and Biobased Procurement Preference Program.

²⁸ Joshua B. Bolten, Director, Office of Management and Budget, "Circular No. A-123 Revised," Executive Office of the President, December 21, 2004, http://www.whitehouse.gov/omb/circulars/a123/a123_rev.html.

subject to procurement regulations, as the scope of Energy Star and FEMP specifications and the definitions of what makes a product energy-efficient can be difficult to understand. For instance, air conditioner capacity, frequently described in solicitations in terms of tonnage, is defined in terms of Btu/hour in the Energy Star specifications.²⁹ Consequently, complying with the legislation may be difficult in some cases even for those (few) federal employees familiar with the energy-efficiency laws.

GSA Advantage!, GSA's online schedule, includes an "Environmental Aisle" section on its website which lists only those products classified as environmentally friendly, whether they are made from recycled content, are Energy Star qualified or FEMP designated, are bio-based, etc. Users can search within the Environmental Aisle for specific types of products which meet certain environmental criteria or they can perform a normal search on the main page and then eliminate all results that are not Energy Star compliant, for example.³⁰ GSA also offers a website that lists all the products covered by the energy-efficient purchasing requirements. This would be a very useful tool to procurement agents unfamiliar with the regulations, but there is no readily apparent link from GSA Advantage! to this webpage, reducing the chances of procurement workers stumbling across it.³¹

Some of the language on the Environmental Aisle could create the impression that the energy-efficiency procurement requirements are only recommendations or suggestions. While the website lists all the relevant FAR subparts with environmental purchasing requirements, along with the Executive Orders and Laws which mandated the regulations, rather than frame the requirements with a phrase like, "Government agencies are required to consider the following regulations when making purchases on GSA Advantage," GSA writes, "For some good reasons to buy environmental, take a look at the following links."³² The language throughout GSA Advantage! should reflect the fact that the purchase of energy-efficient products is mandatory for federal agencies, not discretionary as for some other environmental attributes.³³

As for the actual listings on GSA Advantage!:

²⁹ 1 ton of air conditioning equals 12,000 Btu/hr.

³⁰ GSA Advantage!, "Go Environmental with GSA Advantage!"
https://www.gsaadvantage.gov/advgsa/advantage/search/specialCategory.do?BV_SessionID=@@@@1786661734.1189525059@@@@&BV_EngineID=cccjaddllikehdfcflgcefmdgfhgdgji.0&cat=ADV.ENV.

³¹ US General Services Administration, "Regulations, Product Guides, Articles, and Presentations," April 27, 2007,
<http://www.gsa.gov/Portal/gsa/ep/programView.do?pageTypeId=8207&ooiid=9854&programPage=%2Fep%2Fprogram%2FgsaDocument.jsp&programId=8550&channelId=-12974>.

³² GSA Advantage!, "Go Environmental with GSA Advantage!"
https://www.gsaadvantage.gov/advgsa/advantage/search/specialCategory.do?BV_SessionID=@@@@1786661734.1189525059@@@@&BV_EngineID=cccjaddllikehdfcflgcefmdgfhgdgji.0&cat=ADV.ENV.

³³ This issue is not unique to GSA Advantage!, however. FEMP's website refers to its product specifications as "recommendations," rather than requirements in a few places. See "Equipment Procurement," February 8, 2007, http://www1.eere.energy.gov/femp/program/equip_procurement.html, for example. And OFPP and OMB's recent proposed policy letter on the acquisition of green products and services similarly mixed language appropriate for statutory mandates with language appropriate for policy preferences. Federal Register, Volume 72, No. 248, December 28, 2007, pp. 73904-73909.

- GSA Advantage! does not list even one model classified as Energy Star qualified or FEMP-designated, for 41 of the 63 product categories for which there is a FEMP or Energy Star designation.
- Three product categories contain only one or two compliant products.
- Twelve categories contain a minority of compliant products, but more than one or two.
- In six product categories, more than half of the listings are compliant (but this may largely reflect the high market share of Energy Star products in these categories, rather than deliberate efforts by GSA or its vendors).³⁴
- One product category – central air conditioning – lists compliant products almost exclusively.

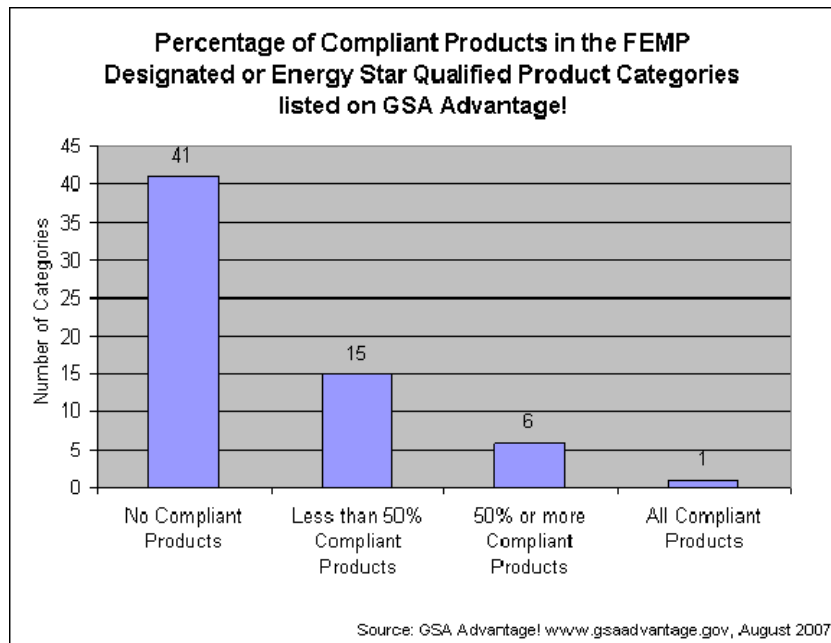
In many of the categories for which GSA lists compliant products, the first products returned from a query to the main search engine (which are presumably the products most likely to be purchased) are not compliant. A simple change to GSA Advantage! would make the default order of a product search show the most efficient products first.

DLA's EMALL is laid out in a similar fashion to GSA Advantage! Although it does not have an entire Environmental Aisle, it does have an environmental icon that, if clicked, will return only environmentally friendly products, which include but are not limited to energy-efficient products. In EMALL's environmental search function, it is slightly more difficult to understand exactly why a given product is listed as environmentally friendly. The different environmental listings are classified by acronyms which are then explained in a pop-up window. But some of the acronyms are missing explanations, and consumers cannot search by individual environmental attributes, such as FEMP-designated or Energy Star qualified.³⁵

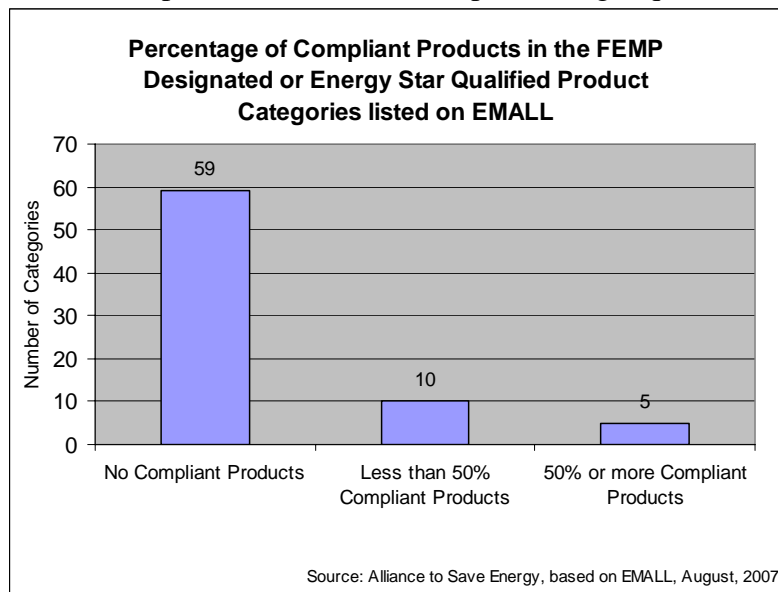
While we would change some of the wording on GSA Advantage! so as to make it clearer to government agencies that they are obligated to purchase energy-efficient products, at least the Environmental Aisle lists the relevant FAR subparts, environmental laws and Executive Orders. DLA's EMALL, on the other hand, allows users to search for environmentally friendly products (not necessarily compliant with the energy-efficiency requirements – for instance, it includes products made from recyclable materials), but gives no explanation or guidance we could find as to why purchasers would bother to purchase those products. Background information and an explanation of agency responsibilities would be very useful and would likely contribute to greater compliance with the law.

³⁴ These categories are: compact fluorescent bulbs, fluorescent tube lamps, ground-source heat pumps, televisions, DVD players, and room air conditioners.

³⁵ DOD EMALL,
<https://emall6.prod.dodonline.net/shopping/search/search.action?keywords=compact+fluorescent&partNumber=&wildcardPatternId=0&categoryId=&sortAttributeId=0&sortOrderId=0&pageNumber=1&expansionRefinementId=11000%3A1%3A-1&corridor=1&keepRefinements=true&refinementChanged=false&searchFormInitiated=true&refinementIds=11000%3A1%3A-1&refinementIds=70097%3A1%3A-1>.



The level of compliance on DLA's EMALL is similar to that of GSA Advantage! Of the 74 Energy Star or FEMP designated product categories sold on EMALL, only 15 product categories contain at least some compliant models. Only five product categories contained more than half compliant models (which once again may reflect market conditions rather than compliance with the federal purchasing requirements).³⁶



For both EMALL and GSA Advantage!, the share of product listings that are actually compliant may differ from the findings reported here. Examples were found on both sites

³⁶ These categories are: compact fluorescent bulbs, exit signs, video cassette recorders, combination television/VCR units, and DVD players.

of products that are Energy Star qualified, but that were not listed as such. Conversely, one example of a product that was not Energy Star compliant, but had been identified with the label anyway, was also found on GSA Advantage! (a cursory search on EMALL did not result in a similar finding). No widespread search on either site was conducted to determine how pervasive this mislabeling is, but the more difficult it is for purchasers to identify compliant products, the less likely they are to comply.

It's not clear why this mislabeling persists. Perhaps vendors fail to list compliant products without realizing themselves that their product is compliant. Perhaps GSA or DLA occasionally mislabel new products. Perhaps unscrupulous vendors deliberately list non-compliant products as compliant, knowing GSA and DLA are unlikely to check the specifications on every single product they list on their sites.³⁷ Regardless, as long as the burden of labeling products is shared between employees of vendors and DLA and GSA, the potential for error is there.

GSA and Energy Star are working to avoid this mislabeling by testing a new vendor package that automatically would cross-reference product listings so vendors are no longer responsible for designating their own product as Energy Star compliant or not.³⁸ Since Energy Star has lists of compliant models of products it certifies on its website, vendors could simply enter their product number and a quick search would automatically tell GSA if the product qualifies for the Energy Star label. To our knowledge, DLA has not participated in an equivalent project. GSA is also working on a parallel system for FEMP-designated products. This may be harder to design and implement, however, since FEMP does not list qualified product numbers, it lists minimum energy efficiency specifications that a qualified product must meet.

The recently passed Energy Independence and Security Act of 2007 (EISA) set a deadline of August 19, 2008 for GSA and DLA to phase out non-compliant products from their purchasing websites.³⁹ In OFPP's proposed policy letter issued shortly after EISA passed, the recommended phase-out date for the GSA and DLA websites is January 1, 2010.⁴⁰ It is unclear how these dates will be reconciled, although EISA would presumably take precedence, as a matter of statute rather than Administration policy. Perhaps OFPP and OMB will change the phase-out date in its final letter to reflect the deadline in EISA.⁴¹

³⁷ GSA staff have indicated in previous conversations that they will assume no responsibility for the accuracy of data provided by vendors, and do not check these submissions although they provide guidance to vendors in how to submit complete and accurate information for on-line listings.

³⁸ PWG meeting minutes, February 31, 2008

³⁹ The Energy Independence and Security Act of 2007, HR 6, Public Law 110-140, Section 525. The deadline in the law is actually nine months from when the bill was signed into law, which was on December 19, 2007.

⁴⁰ OFPP & OMB, "Acquisition of Green Products and Services," *Federal Register*, Vol. 72, No. 248, December 28, 2007, pp. 73904-73909.

⁴¹ The Alliance submitted written comments to OFPP on the proposed policy letter recommending this change, among several others.

Furthermore, the proposed OFPP letter directs GSA and DLA to create an automatic substitution policy replacing non-compliant products with a compliant, Energy Star or FEMP-designated equivalent, so buyers attempting to purchase non-compliant products would automatically purchase compliant products instead.

Given DLA and GSA's resistance to enforce the requirements of EPCA 2005, however, it remains to be seen to what extent EISA and the proposed policy letter will impact the content of their purchasing websites – absent additional outreach, training, monitoring, and enforcement efforts by FEMP, OMB, and agencies themselves.

Vendors' Role

GSA explicitly states that vendors are not responsible for selling efficient products on the government's shopping websites: "Customers should keep in mind that schedule vendors are not required to offer only 'energy efficient' items and are therefore strongly encouraged to request that schedule vendors identify Energy Star compliant products, or other energy efficient products, in their pricelists and product catalogs prior to placing an order."⁴² Although this is true, given that it is illegal for government agencies to purchase inefficient products, it would make sense to place some obligation on vendors, by administrative rule or statute, not to sell non-compliant products to the government without written exemptions.

Vendors could take an active role in ensuring governmental compliance with the legislation. At least a few vendors are considering training their government salespeople on the energy-efficiency procurement regulations to allow them to alert agencies that a given solicitation may be in violation of the energy-efficient procurement requirement, or to monitor winning bids from other companies to make sure the products being supplied are compliant.

Ensuring compliance with the energy-efficient procurement regulations would benefit companies with a comparative advantage in energy-efficiency. Setting up an ombudsman or whistle-blower website through FEMP, OMB, GSA and DLA, or individual federal agencies would allow these companies to anonymously report violations of the regulations by procurement agents or other vendors.

We spoke to only a few representatives of companies that sell to government agencies during our research, but they unanimously said their companies supplied whatever the government asked (compliant or not). Given the federal government's enormous purchasing power, vendors have a vested incentive to keep their government customers satisfied, so there is little reason to doubt vendors who claim they would meet whatever requirements the government makes in a solicitation.

⁴² US General Services Administration, "Energy Star Compliant Products and Other Energy Efficient Products: Smarter Solutions for a Better Environment," August 29, 2007, http://www.gsa.gov/Portal/gsa/ep/contentView.do?contentId=9854&contentType=GSA_OVERVIEW.

But vendors are also not going to supply a more expensive product than necessary to meet government specifications. So if a solicitation doesn't specify that any products supplied must be Energy Star or FEMP-designated, vendors will bid with their lowest-first-cost product that meets the specifications, irrespective of the product's energy efficiency.

Therefore, if procurement agents consistently specified compliant products, vendors would be happy to comply with their request, but – absent clear buyer demand – vendors are not going to sacrifice sales in the name of energy conservation.

Similarly, although every vendor we spoke to knew about the energy-efficiency purchasing requirements,⁴³ they all admitted to listing all of their products – efficient or not – on the GSA and DLA government purchasing websites. Not to do so would be a missed opportunity for a potentially large volume of sales, especially if their competitors behave in the same way.

Areas of Future Investigation

If the solicitations listed on FEDBIZOPPS and the GSA and DLA federal purchasing websites are any indication, the federal energy-efficiency purchasing mandates in EPAct 2005 are not being widely met. However, compliance rates government-wide may not be as low as these statistics would indicate. This study did not look at indirect acquisitions, such as those that would be necessary for construction projects. Several operations and maintenance contracts are listed on FEDBIZOPPS (along with a few construction projects), many of which would likely include some purchase or replacement of equipment covered by Energy Star or FEMP.

For the purposes of this report, only those solicitations that explicitly listed a covered product were counted. So for instance, a solicitation to remove and replace a roof or an HVAC system would be counted, while a solicitation to construct a new building would not, unless the solicitation was sufficiently detailed for it to be clear if the agency was attempting to comply with the regulations. This results in the exclusion of a large swath of covered products. But short of poring over each new building's architectural plans, there was no known method to track compliance of energy-using equipment or components acquired through these large construction projects.

Several of the solicitations we examined were incomplete, listing only a pre-solicitation notice in some cases, or a synopsis of the solicitation accompanied by a dead link to the full solicitation. So it is possible the full solicitations incorporated the energy-efficiency requirement missing from the other documents. This seems unlikely, however, since in virtually every example we found of a compliant solicitation, the statement requiring energy-efficient products was given not only in the full solicitation, but in the pre-solicitation and synopsis as well.

⁴³ Note that we did not contact a random sample of vendors, but focused our interviews on firms that are Associates of the Alliance to Save Energy, and likely to have an interest in marketing energy efficiency as a selling point.

As mentioned earlier, the Alliance was unable to look at the products that were ultimately purchased and supplied as a result of solicitations. It is possible the winning bidder supplied the government with energy-efficient equipment even without an explicit stipulation in the solicitation. It is also possible the winning bidder did not always comply with the energy-efficiency requirement even when it did appear in the solicitation, especially when the energy-using product covered by Energy Star or FEMP was not the central feature of the solicitation.

The various ways to comply with energy-efficiency requirements in federal solicitations make evaluating compliance more difficult than it needs to be. Absent specific directives on how to specify that energy-efficient equipment is needed, procurement staff can comply by using several different terms (as detailed in the “contract solicitations” section of this paper). There are also no rules for where the energy-efficiency requirement should be mentioned (i.e., in the synopsis of the solicitation, in the full solicitation which frequently takes up several pages, etc.); this makes the process of searching for the specifications difficult, not only for our study but more importantly, for federal vendors. Perhaps this will be resolved with the recent inclusion of a mandatory FAR clause on energy-efficient procurement.

There are also no regulations for how long solicitations must remain available online. This makes it hard to check compliance retrospectively because not all listings that have been posted during a certain period are available online for review. If we were to replicate this research every three months, for example, there would be no guarantee all the listings posted during that period would still be online when we went back to search for them.

FEDBIZOPPS also does not include information on solicitations of less than \$25,000. Agencies are required to post certain purchases above the micro-purchase threshold (which was raised to \$3,000 in 2006⁴⁴) on the Federal Procurement Data System (FPDS) website, but details on the specific products supplied are not provided, making it impossible to determine if a given purchase is compliant or not.⁴⁵ Nor, to our knowledge, is comprehensive information on these purchases publicly listed anywhere else in a detailed and consistent manner.

FPDS does include a checkbox to indicate whether the product supplied was EPA-designated or not. A similar box to indicate whether a purchase was compliant with the energy-efficiency procurement requirements would seem logical. According to several representatives of government agencies who had advocated for including the “EPA-designated” checkbox on the form, however, the accuracy of the “EPA-designated product” information from the checkbox has been questionable at best, with purchasers

⁴⁴ Office of Logistics & Acquisition Operations, National Institute of Health, “Micro-Purchase Threshold Increased to \$3,000,” September 28, 2006, <http://olao.od.nih.gov/Acquisitions/ImportantNotices/simplifiedacquisitions/micropurchaseincrease.htm>.

⁴⁵ For a list of the specific purchases that must be posted to FPDS, see FAR Subpart 4.606 – Reporting Data, <http://www.acquisition.gov/far/current/html/Subpart%204.6.html>.

both falsely claiming to have purchased EPA-designated products and failing to fill in the checkbox even when they did.⁴⁶

These caveats notwithstanding, the consistently poor compliance rates seen in each of the areas we examined indicate overall government compliance is far lower than it should be. The vast majority of solicitations identified in our research do not include the necessary statements and specifications that would require all products supplied to be Energy Star-qualified or FEMP-designated. GSA and DLA also do not appear to be complying with the legislation, as non-compliant products outnumber compliant products in almost all of the relevant product categories. This conclusion is strengthened given the very limited awareness and priority attached to the energy-efficient procurement requirements by the very procurement agents who are responsible for product purchases.

More focused and continuing outreach, training, and oversight will clearly be needed to achieve higher compliance levels, reduce federal energy costs, and leverage the federal government's massive purchasing power to transform markets for energy-efficiency. But effective, comprehensive oversight and monitoring of compliance must be accompanied by increased efforts in information-dissemination to both federal purchasers and federal vendors, along with periodic training on government procurement.

Recommendations

In the light of our research, we offer the following recommendations to facilitate higher compliance with Section 104 of EPCA 2005. These recommendations are strictly those of the Alliance to Save Energy project team, for consideration by FEMP and other members of the federal procurement and policy community.

Training:

- *Train procurement staff about the new FAR clause and other requirements for energy-efficient procurement.* Even though a mandatory FAR clause on energy efficiency criteria has been added to the procurement checklists, without further guidance and knowledge about the requirement, the procurement staff will not be able to correctly determine when they need to add the clause to solicitations. It would also be useful to train staff who regularly request equipment or draw up specifications for procurement requests (engineers/program managers etc) about these requirements so they can modify their requests accordingly, but training procurement staff should be a higher priority. An oversight agency, such as OFPP, should ensure facilities are carrying out environmental management training programs as directed in EO 13423. Top-level support for and focus on these programs will embolden procurement staff to push back on non-compliant requests.

⁴⁶ FEMP PWG meeting, January 31, 2008.

- *Restart FEMP procurement training.* Training organized by FEMP and intended exclusively for a government audience would be far more likely to be comprehensive, specific, and useful than training provided by other organizations. Congress should appropriate funds for FEMP to restart and expand its energy-efficient procurement training program. The funds should be sufficient to allow FEMP to aggressively market training seminars and workshops to government agencies. This is not a one-time need; given the steady turnover in agency procurement personnel training is needed on a recurrent basis, government-wide.
- *Periodically review and update training materials and programs.* Agencies should regularly review their procurement training literature and the procurement pages on their websites to ensure they accurately reflect the latest policies, directives, and technical specifications for Energy Star and FEMP-designated equipment.
- *Develop and disseminate energy-efficiency procurement fact sheets.* In order to ensure uniform and accurate explanations of the requirements, a government agency (probably FEMP or OFPP) should create and disseminate fact sheets on the energy-efficient procurement requirements, and make sure they are updated to reflect market trends and new federal appliance efficiency standards. While some such documents already exist, given procurement staff's lack of familiarity with the requirements, the fact sheets are either not being distributed widely enough or have proven ineffective.⁴⁷ A good avenue for dispersing these sheets would be through a FEMP procurement training program. They should also be posted prominently on GSA, DLA, and agency websites, in addition to the procurement section of FEMP's website.

Federal Purchasing Websites:

- *Redesign federal purchasing websites.* DLA and GSA may need to continue to list inefficient products along with the compliant products on their online shopping sites, so agencies with written exceptions can purchase non-compliant products where needed and so combat-related purchases can still be made on those sites. These purchases should be the exception, however, not the rule, so the online shopping sites should be redesigned so search queries automatically return only compliant products, to start with. If a purchaser then needs to search for additional, non-compliant products, there should be a separate search process, much as GSA has a separate Environmental Aisle. This change (and others recommended below) should be made by August 19, 2008, to meet the deadline given in Section 525 of EISA.

⁴⁷ For a list of some of the available green procurement training tools that have been developed, see, for example, the Naval Facilities Engineering Service Center, "Green Procurement Training," U.S. Navy, July 19, 2007, http://141.156.28.142/topics/gp_training.html.

- *Ensure purchasers know that buying a non-compliant product is contrary to law and to the FAR.* A warning screen should be displayed before finalizing the purchase of a non-compliant product, to inform the purchaser that unless he or she has received a written exemption permitting the purchase of a non-compliant product, he or she may be making a purchase not allowed by law and by regulation. This message should also provide an easy link to an energy-efficient, compliant version of the product being purchased.⁴⁸
- *Post life-cycle cost estimates.* GSA and DLA should post life-cycle cost estimates for all covered products, so purchasers could see that Energy Star and FEMP products save money over their lifetimes compared to non-compliant products. This is especially important in cases where the up-front purchase price of compliant products is greater than that of non-compliant products. Users should also be able to search for and list products in order of lowest life-cycle cost, not only by lowest purchase price.
- *Label products properly.* GSA and DLA should each implement, as soon as possible, a process of data quality control, to ensure products are correctly labeled on their shopping sites. With the constant influx and removal of products offered, this scrutiny and quality control needs to be a continuing process, not a one-time “fix.”
- *Implement a system of automatic substitution for purchasers requesting non-compliant energy-using (or -saving) products.* GSA and DLA should identify frequently requested non-compliant products, and implement a system to automatically substitute the equivalent Energy Star qualified or FEMP-designated product, while alerting the buyer to this change as an educational message to influence future purchases.
- *Undertake a study to identify potential means of monitoring compliance for purchases with government-issued purchasing cards.* A computerized database of purchases could allow an oversight agency to monitor and enforce compliance with the energy-efficiency purchasing requirements by individual government employees. It could also highlight which non-compliant products are most frequently purchased, so FEMP or OFPP could target those product areas for further outreach and training activities.

Tracking Compliance:

- *Simplify and enhance the functions of the FEDBIZOPPS website.* Recommended improvements include ensuring all relevant background documents are posted online, fixing the broken links to explanatory notes, and facilitating email notification to vendors, buyers, and any other interested parties when a specific

⁴⁸ Private correspondence with representatives from DLA and GSA at GovEnergy 2007 conference in New Orleans, from August 6-8, 2007.

search or keyword is included in a new posting. Evaluation of compliance would also be made easier if all solicitations were required to include the energy-efficiency procurement specifications in a uniform manner. This last measure could be accomplished through effective use of the new FAR clause, and notification (with regular reminders) to FEDBIZOPPS users.

- *Track the number of exceptions for non-compliant purchases issued by agencies.* A government oversight agency such as OMB should regularly track the number of exceptions issued by each agency. In order to increase the likelihood that agencies issue written exceptions for each non-compliant purchase (an admittedly burdensome component of the energy-efficiency purchasing law), the regulations should be changed to allow the head of an agency to delegate authority to a limited number of senior officials to sign off on valid exceptions for non-compliant purchases.
- *Remind agencies of the requirement.* Executive agencies that procure at least \$50 million in a given fiscal year are required to prepare a forecast of their expected contract opportunities for the coming year.⁴⁹ An oversight agency such as OFPP should contact the procurement or technical personnel listed on those contracts and make sure they are familiar with the energy-efficiency procurement regulations and to verify the procedures in place that will help them comply.⁵⁰

Enforcement:

- *Invalidate non-compliant awards.* Clarify, in a policy memo or the FAR, that the failure to specify compliant products, or to include them in a winning bid proposal, are legal grounds for contesting an awarded contract.
- *Make more detailed data on the procurement performance of agencies publicly available.* OMB considers agency compliance with the energy-efficient procurement regulations in developing its energy scorecard. But this relies on agency self-reporting in fairly broad categories, rather than documentation of purchases that are or are not compliant.⁵¹ Further, these OMB scorecards are not available in detail to the public. Publicizing agency performance would give agencies more of an incentive to comply and would allow oversight agencies and advocacy organizations to better gauge agency-level compliance.
- *Develop enforcement mechanisms.* Penalize agencies that fail to report their exceptions or that abuse the system and grant exceptions for unjustified reasons: For example, if an agency fails to monitor the purchasing practices of its

⁴⁹ US Code, 15 U.S.C. 637(a)(12)c).

⁵⁰ Agency procurement forecasts can be found on Acquisition Central, "Agency Recurring Procurement Forecasts," http://acquisition.gov/comp/procurement_forecasts/index.html.

⁵¹ It is often pointed out that such documentation of individual purchases would require costly and complex tracking systems – with the exception of tracking on-line purchasing through GSA and DLA, which offers the potential for automated data collection.

employees with government purchasing cards, the agency's permission to freely distribute those purchasing cards could be curtailed or revoked until the agency can demonstrate it has developed and implemented a tracking system to monitor employee compliance with the regulations. Procedural restrictions or financial penalties should be levied on agencies and facilities whose energy scorecards demonstrate consistently low performance; an example might be to limit agency budgets for future purchases.

- *Extend enforcement to vendors.* Agencies should be directed to give preference to companies with a good record of supplying only energy-efficient products to the government. Conversely, a vendor should be penalized if it supplies non-compliant products without receiving a written exception, either in response to a solicitation or in a contract for energy services, maintenance, or construction. Possible penalties could include suspending vendors from government sales for a period of time.

Conclusion

Even though federal energy-efficiency procurement requirements have existed since President Clinton issued Executive Order 13123 in 1999, compliance with the requirements still remains very low, based on our review of transactions and interviews with federal purchasers and vendors.⁵² Agencies, individual staffers, and government shopping websites continue to pay too little attention to this long series of policies, regulations, and now legal requirements.

Non-compliance with the energy-efficiency procurement regulations costs taxpayers as much as \$435 million annually and results in the needless emission of about 3 million metric tons of carbon dioxide. Eliminating this waste will require a renewed, government-wide effort to encourage, support, and enforce compliance with the energy-efficiency procurement laws.

⁵² President William J. Clinton, *Executive Order 13123 – Greening the Government Through Efficient Energy Management*, Section 403 (b), June 8, 1999, <http://www1.eere.energy.gov/femp/pdfs/eo13123.pdf>.