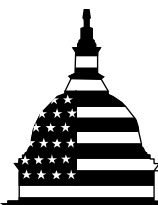


March 2013

ENERGY EFFICIENCY

Better Coordination among Federal Programs Needed to Allocate Testing Resources



G A O

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Why GAO Did This Study

The federal government has established three key programs to encourage energy efficiency in household appliances and consumer electronics sold in the United States: (1) federal minimum efficiency standards, led by DOE; (2) EnergyGuide, which requires product labeling and is led by the FTC; and (3) Energy Star, a voluntary labeling program led by EPA.

Pub. L. No. 111-139 requires GAO to annually identify programs, agencies, offices, and initiatives with duplicative goals and activities. In response to this mandate, the objectives for this report are to: (1) examine these three programs' approaches to improving the energy efficiency of household appliances and consumer electronics and the scope of products they cover, and (2) determine to what extent, if any, federal programs to foster energy efficiency for these products are fragmented, overlapping, or duplicative. GAO reviewed relevant legislation and program documents and spoke with staff at the agencies about each of the programs, and to stakeholders, including manufacturers.

What GAO Recommends

To limit the potential for duplication in the current Energy Star verification testing activities, GAO recommends that EPA take steps to better communicate to DOE the models selected for testing so DOE can avoid testing the same ones. DOE and EPA acknowledged the importance of coordination, but EPA disagreed with the draft recommendation, citing concerns it could be labor intensive to implement. GAO revised the recommendation to clarify EPA's flexibility in implementing it.

View [GAO-13-135](#). For more information, contact Frank Rusco at (202) 512-3841 or ruscof@gao.gov.

ENERGY EFFICIENCY

Better Coordination among Federal Programs Needed to Allocate Testing Resources

What GAO Found

The three key federal energy efficiency programs—minimum energy efficiency standards led by the Department of Energy (DOE), EnergyGuide led by the Federal Trade Commission (FTC), and Energy Star led by the Environmental Protection Agency (EPA) with support from DOE—take different approaches to the shared goal of improving the energy efficiency of selected categories of household appliances and consumer electronics. The scope of products covered by these three programs also varies, and a number of products are covered by only one program, while others are covered by two or all three. Examples are as follows:

- Minimum energy efficiency standards establish a national minimum level of energy efficiency for selected categories of products and are designed to eliminate the least efficient products from the marketplace. These standards currently apply to 33 categories of products, including refrigerators and dishwashers.
- EnergyGuide provides information displayed on a label attached to selected products that enables consumers to compare the estimated energy cost and energy consumption of different models within a given product category. EnergyGuide covers 16 such product categories, including televisions and dishwashers.
- Energy Star identifies the most energy efficient models within a given category of products. Manufacturers of qualifying products can display an Energy Star label on their products that is widely recognized by buyers as an indication of energy efficiency. The program also encourages manufacturers to improve energy efficiency of some models so that those models qualify for the Energy Star label. Energy Star covers 37 such product categories, including televisions and washing machines.

Federal programs to increase the energy efficiency of household appliances and consumer electronics are fragmented and overlapping, with one area of duplication. The programs are fragmented in that three federal agencies are addressing the same broad area of national need—improving energy efficiency. The programs are overlapping in that they target similar users—consumers. While fragmentation and overlap may result in duplication of resources, GAO found that these three programs are not broadly duplicative because they are not engaged in the same activities and do not provide the same services; however, GAO identified one duplicative activity within Energy Star. Specifically, GAO identified duplication in some testing activities undertaken to verify that products meet the criteria for carrying the Energy Star label. EPA and DOE each manage separate verification testing programs and, while the agencies coordinate to minimize duplication, GAO found 11 instances in which identical models had been tested twice in the same year—about 1 percent of the products tested. This duplication occurred because EPA does not communicate to DOE about some models that have been selected for testing until after the tests are complete; therefore, some models were tested twice while other models went untested. As a result, the agencies cannot ensure that scarce testing resources are maximized, either by eliminating unnecessary duplicative testing, or reallocating resources toward testing additional products.

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Abbreviations

DOE	Department of Energy
EIA	Energy Information Administration
EPA	Environmental Protection Agency
EPCA	Energy Policy and Conservation Act of 1975
FTC	Federal Trade Commission
kWh	kilowatt-hour
MOU	Memorandum of Understanding

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Accountability * Integrity * Reliability

United States Government Accountability Office
Washington, DC 20548

March 28, 2013

The Honorable Ron Wyden
Chairman
The Honorable Lisa Murkowski
Ranking Member
Committee on Energy and Natural Resources
United States Senate

According to data from the Energy Information Administration (EIA),¹ American households spent a total of nearly \$230 billion on home energy expenditures in 2009—an average of about \$2,024 per household. Energy to power household appliances—such as heating and cooling systems—and consumer electronics—such as televisions—represents a large portion of these expenditures. Increases in energy prices, paired with current economic conditions, have heightened consumers' interest in making their households more energy efficient and reducing their energy consumption. In addition, most energy production results in the emission of pollutants and greenhouse gases such as carbon dioxide, which has been linked to global warming. As a result, reducing the consumption of energy can reduce the pollutants and greenhouse gases that are released into the environment.

The federal government has established the following three key programs to encourage energy efficiency in household appliances and consumer electronics, and to inform consumers about these products' energy consumption:

1. The federal minimum efficiency standards program requires that certain products, such as residential appliances, commercial equipment, and lighting products, meet specified energy efficiency standards before they can be sold in the United States. The minimum efficiency standards were created under the Energy Policy and Conservation Act of 1975 (EPCA) to, among other things, encourage national energy conservation and increase energy efficiency.² The

¹ EIA is a statistical agency within the Department of Energy that collects, analyzes, and disseminates independent information on energy issues.

² Pub. L. No. 94-163, Title III, Part B, 89 Stat.871, 917-932 (1994), (codified as amended at 42 U.S.C. §§ 6291-6309).

U.S. Department of Energy (DOE) is responsible for establishing these standards and periodically revising them to achieve the maximum level of energy efficiency that is technically feasible and economically justified.

2. The EnergyGuide program requires manufacturers to label and clearly display the energy consumption and approximate annual energy costs of certain products. EnergyGuide was also created under EPCA. It is administered by the Federal Trade Commission (FTC) with assistance from DOE.³
3. The Energy Star program provides a way for manufacturers to help consumers identify, through the use of the distinctive blue Energy Star label, appliances and other products that deliver the same or better performance as comparable models while using less energy. Participation in the program is voluntary. Energy Star was initiated in response to the Clean Air Act Amendments of 1990⁴ and the Energy Policy Act of 1992⁵ and, for many years, was jointly administered by the Environmental Protection Agency (EPA) and DOE. In 2009, the agencies signed an agreement making EPA the lead manager for the program and DOE the lead agency for developing testing procedures to verify that products meet Energy Star specifications.

GAO is required to conduct routine investigations to identify programs, agencies, offices, and initiatives with duplicative goals and activities within departments and governmentwide and report annually to Congress in accordance with Section 21 of Pub. L. No. 111-139. For the purposes of this report,

- fragmentation occurs when more than one federal agency, or more than one organization within an agency, is involved in the same broad area of national need;
- overlap occurs when programs have similar goals, devise similar strategies and activities to achieve those goals, or target similar users; and

³ Pub. L. No. 94-163, Title III, Part B, 89 Stat. 871, 917-932 (1994), (codified as amended at 42 U.S.C. §§ 6291-6309).

⁴ Pub. L. No. 101-549, 104 Stat. 2399 (1990), (codified as amended at 42 U.S.C. §§ 7401-7700).

⁵ Pub. L. No. 102-486, 106 Stat. 2776 (1992).

-
- duplication occurs when two or more agencies or programs engage in the same activities or provide the same services to the same beneficiaries.

As part of the work undertaken in response to this mandate, we identified these three federal energy efficiency programs as possible areas of fragmentation, overlap, or duplication. Our objectives for this report were to: (1) examine these three programs' approaches to improving the energy efficiency of household appliances and consumer electronics and the scope of products they cover and (2) determine to what extent, if any, federal programs to foster energy efficiency in home appliances and consumer electronics are fragmented, overlapping, or duplicative.

To examine these three programs and the scope of products they cover, we reviewed relevant laws, regulations and agreements that specify the responsibilities and roles of each agency, including the 2009 Memorandum of Understanding (MOU) between DOE and EPA. We also spoke with officials from each agency. For purposes of this report, we identified the number of product categories covered by each program slightly differently than each of the agencies overseeing them. There are three reasons why our categories and the agencies' categories differ. First, we limited our scope to product categories of household appliances or consumer electronics and did not include commercial or industrial products. Second, we omitted product categories the agencies evaluate based only on water, rather than energy, use. Finally, because each agency uses different levels of specificity to describe product categories, we consolidated some categories into a larger, more inclusive category to allow us to compare across the agencies. For example, minimum standards cover many subcategories of incandescent lamps, and we generalized these products into one product category.

To determine the extent to which these three programs may be fragmented, overlapping, or duplicative, we examined agency documentation that sets forth the scope and purpose of each of these programs and compared the product categories covered by each of the three programs. In addition, we reviewed relevant laws such as the Energy Policy and Conservation Act of 1975, the Clean Air Act, the Energy Policy Act of 1992, and the Energy Policy Act of 2005, as well as DOE regulations that establish testing procedures for covered products. The scope of our work included only household appliances and consumer electronics. We omitted products covered by these three programs that were primarily commercial, industrial, or building products. Additionally, we did not explore products such as urinals and showerheads that are

covered by DOE's minimum standards programs but only in terms of water use. Furthermore, for other products such as washing machines for which both energy and water efficiency is regulated, we considered only the energy efficiency component. We also reviewed the 2009 MOU between DOE and EPA regarding their joint administration of the Energy Star program. We spoke with officials from DOE, EPA, and FTC, as well as nonprofit and private sector stakeholders such as representatives from the American Council for an Energy-Efficient Economy and the Alliance to Save Energy. We also spoke with representatives from the private sector such as corporations that produce the household appliances and consumer electronics that must adhere to program guidelines.

We conducted this performance audit from February 2012 to March 2013 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Three Federal Programs Take Different Approaches to the Shared Goal of Improving Energy Efficiency and the Scope of Covered Products Varies

The three key federal energy efficiency programs we reviewed—minimum energy efficiency standards, EnergyGuide, and Energy Star—take different approaches to the shared goal of improving energy efficiency of selected categories of household appliances and consumer electronics. The scope of products that these three programs cover also varies.

Programs Take Different Approaches

The three key federal energy efficiency programs we reviewed take different approaches to improving energy efficiency as follows:

Federal minimum efficiency standards. Federal minimum efficiency standards for selected categories of household appliances and consumer electronics, among other things, are designed to eliminate the least efficient products from the market. Under EPCA, Congress required DOE to set minimum energy efficiency standards for manufacturers of specified categories of consumer products such as refrigerators, dishwashers,

furnaces, and hot water heaters. Congress later amended the statute to include additional consumer product categories, as well as other categories.⁶ Manufacturers' compliance with the standards is mandatory. The statute requires DOE to set and revise standards through the federal rulemaking process. This process calls for analyzing the technical and economic issues associated with setting energy efficiency standards for each category, proposing a standard through public notification, soliciting comments on the standard, revising the rule, and issuing the final rule. Most of the categories with deadlines require at least two rules—either to set an initial standard and later update it, or to update a congressionally set standard and then update it again about 5 years after the first deadline. DOE estimates that, from the inception of the federal minimum efficiency standards program in 1975 through 2005, consumer benefits from these standards amounted to about \$64 billion. DOE projects that the standards will have saved consumers \$241 billion by 2030 and \$269 billion by 2045.

EnergyGuide. EnergyGuide is designed to provide information displayed on a label attached to selected products that enables consumers to compare the estimated energy cost and energy consumption of different models within a given product category. EnergyGuide's familiar yellow label has aided consumers for over 30 years in selecting household appliances and consumer electronics such as televisions and dishwashers by providing information on how much it will cost to run particular models per year and their level of energy consumption.⁷ EPCA requires DOE, in consultation with FTC, to study new product categories to determine whether they should be added to the EnergyGuide program

⁶ The Energy Policy and Conservation Act of 1975, Pub. L. No. 94-163; as amended by the National Energy Conservation Policy Act, Pub. L. No. 95-619; the National Appliance Energy Conservation Act, Pub. L. No. 100-12 (1987); the National Appliance Energy Conservation Amendments of 1988, Pub. L. No. 100-357 (1988); the Energy Policy Act of 1992, Pub. L. No. 102-486 (1992); the Energy Policy Act of 2005, Pub. L. No. 109-58 (2005); and the Energy Independence and Security Act of 2007, Pub. L. No. 110-140.

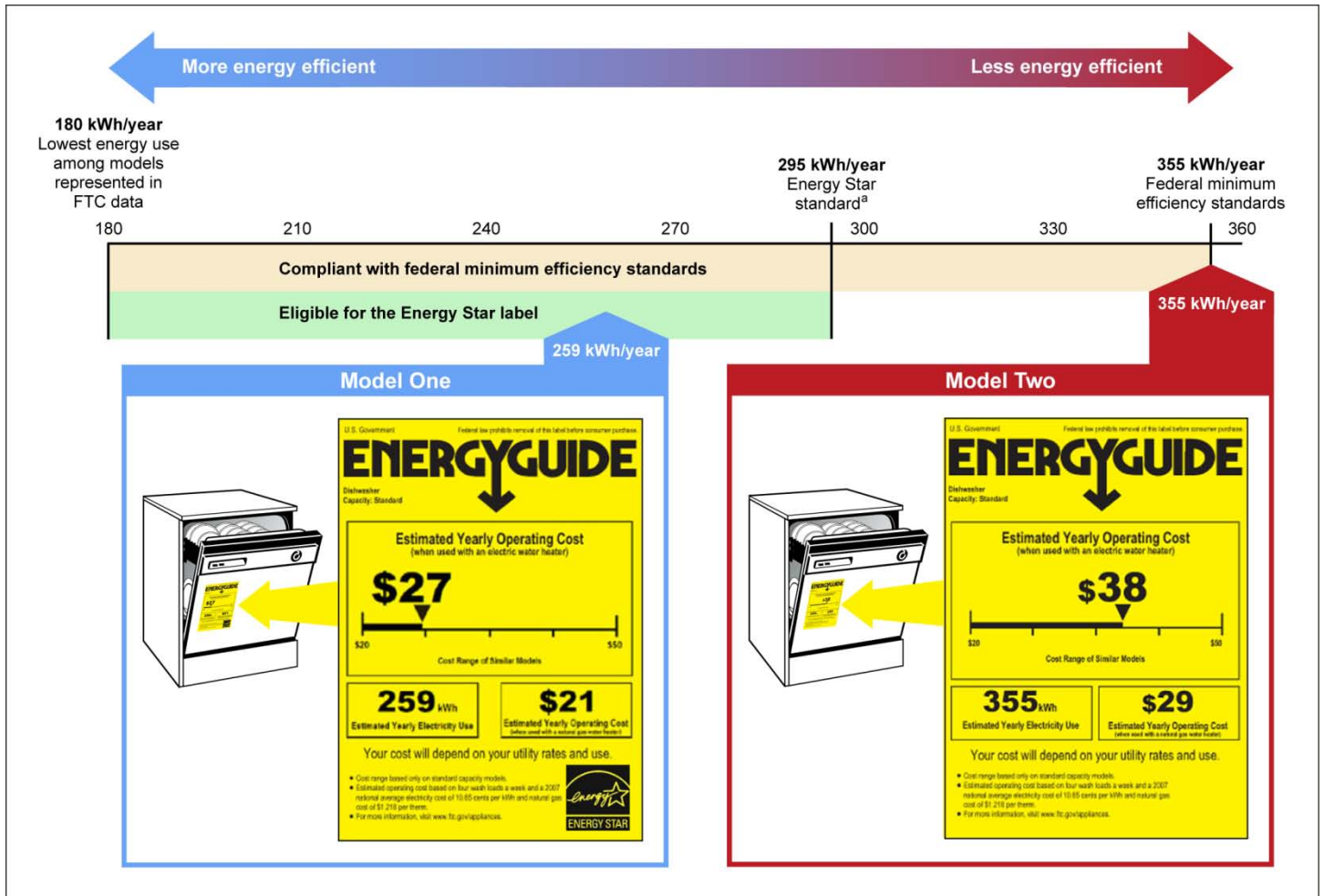
⁷ The law prohibits retailers from removing labels placed by manufacturers or making them illegible. In recent years, manufacturers have used adhesive backed labels adhered to appliances and so-called "hang tags" loosely attached to the interior or exterior of appliances. The law also requires retailers to provide this information in catalogs offering products for sale. In 2000, FTC interpreted its authority over catalogs to encompass websites and required retailers to provide the same information on websites where consumers may purchase such products. In its August 2007 revisions to the rule, FTC, among other things, prohibited the use of hang tags on the exterior of appliances but continues to allow them on the inside.

and to report annually on the energy savings of the program. Manufacturers' compliance with the standards is mandatory. FTC has the authority to add additional product categories if the commission determines that labeling for the product is likely to assist consumers in making purchasing decisions. The statute requires FTC to set and revise standards through the federal rulemaking process.

Energy Star. Energy Star is designed to identify the most energy efficient models—generally the top 25 percent— within a given category of products without sacrificing performance. Manufacturers of qualified products can place the widely recognized Energy Star label on qualifying products as an indication of energy efficiency, which gives the manufacturer an incentive to improve energy efficiency. Participation is voluntary. EPA has reported that the additional incentive the Energy Star program provides as a marketing tool for manufacturers encourages efficiency beyond the level of federal minimum efficiency standards, further reducing energy consumption and the associated greenhouse gas emissions. According to EPA, as of 2012, Energy Star products had prevented more than 150 million metric tons of greenhouse gas emissions annually and reduced electricity consumption by more than 200 billion kilowatt-hours (kWh) per year—a savings that offsets the need for more than 185 additional power plants.

Figure 1 provides an example of the different types of information conveyed to consumers for household appliances and consumer electronics by each of the three programs. Specifically, the figure illustrates a hypothetical case of two models of dishwasher, a product covered by all three programs. In the example, both dishwashers meet the federal minimum efficiency standards. However, the model on the left side of the figure qualifies for an Energy Star label—as noted by the Energy Star logo on the lower right corner of the Energy Guide label for that product—while the model on the right does not. The manufacturers of both models also publish an EnergyGuide label as shown in the figure and are compliant with the federal minimum energy efficiency standard.

Figure 1: Information Three Key Federal Energy Efficiency Programs Provide to Consumers



Sources: GAO; Art Explosion (dishwasher images).

^aDOE has revised the standard for dishwashers to a maximum of 307 kWh/year; however, compliance with this standard is not required until May 30, 2013.

In 2011, the most recent year for which data are available, DOE's budget for these programs was \$42 million; EPA's was \$53.3 million; and FTC

officials estimated that FTC spent about \$215,000,⁸ for a total of about \$96 million to administer these programs.

The Scope of Products Covered Varies

The scope of products that the three federal energy efficiency programs cover varies.⁹ Specifically,

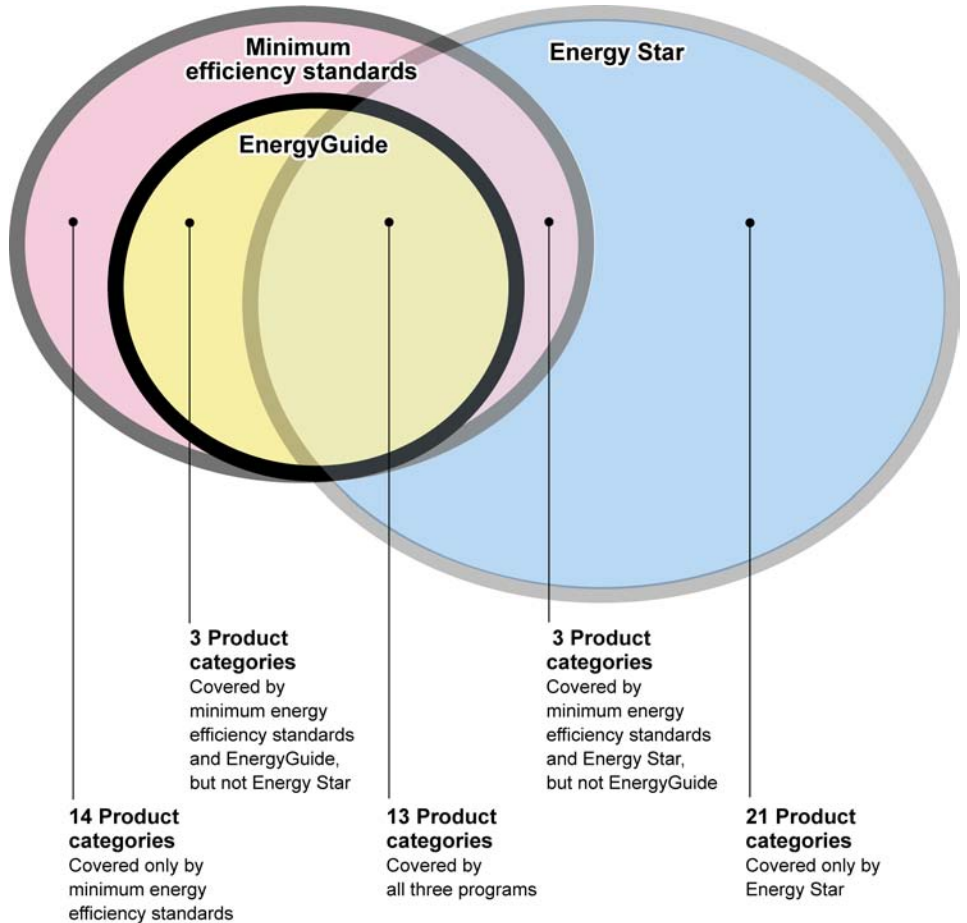
- the minimum efficiency standards currently apply to 33 selected categories of household appliances and consumer electronics;
- EnergyGuide currently covers 16 such product categories; and
- Energy Star program—the broadest of the three programs—currently covers 37 such product categories.

Our analysis found that some products are covered by only one program, some by two programs, and some by all three. For example, of the 37 product categories covered by Energy Star, 21 are covered only by Energy Star, 3 are covered by Energy Star and the federal minimum efficiency standards, and the remaining 13 are covered by all three programs. Figure 2 illustrates the coverage of product categories and the extent to which products are covered by one, two, or all three programs.

⁸ FTC officials told us they do not maintain separate line item budget data for its EnergyGuide activities but, at our request, the agency estimated its spending for fiscal year 2011.

⁹ The number of product categories we identified differs slightly from the number of product categories each agency identifies as noted previously.

Figure 2: Three Key Federal Energy Efficiency Programs' Scope of Coverage Varies



Source: GAO.

Note: Because each agency uses different levels of specificity to describe product categories, we consolidated some categories into a larger, more inclusive category to allow us to compare across the agencies; therefore, the number of product categories we identify differs slightly from the number of product categories each agency identifies.

The three agencies have had varying histories expanding the product categories covered by each program, specifically, as follows:

- DOE has had a limited role in expanding the products covered by the minimum energy efficiency standards; rather, Congress has directed DOE to expand the products covered. The program has set standards for products such as clothes dryers and furnaces since the 1980s, and it has been expanded to include products such as ceiling fans and dehumidifiers. The scope of product categories covered under the

federal minimum efficiency standards has largely been determined by statute and, while DOE has the authority to expand the scope of the program by adding new product categories and update standards for existing categories, it must go through a rulemaking process to do so. In 2007, we reported that DOE had faced difficulties meeting statutory deadlines for issuing standards, but it has recently made progress in improving its timeliness.¹⁰

- FTC officials told us seven products have been added to EnergyGuide since 1980—including fluorescent lamps in the 1990s, ceiling fans in 2007, and color televisions in 2011.¹¹ In 2007 we noted, among other things, that DOE, in consultation with FTC, is required to study new products to determine if any products should be added to EnergyGuide.¹² At that time, however, DOE staff could not identify any instance of such a study, and they told us that they had not completed one during the prior 10 years. We recommended that DOE, in consultation with FTC, regularly review product categories not currently covered to assess whether they should be included in the

¹⁰ In January 2007, we reported that DOE had missed all 34 of the deadlines for rulemaking that had come due for the 20 product categories with deadlines that had passed. In addition, it had not revised standards for categories that had no deadlines but for which DOE is obligated to issue new rules. We recommended at that time that DOE take prudent steps to expedite its processes and, since then, DOE has sharply decreased the time to issue new rules. See GAO, *Energy Efficiency: Long-standing Problems with DOE's Program for Setting Efficiency Standards Continue to Result in Forgone Energy Savings*, [GAO-07-42](#) (Washington, D.C.: Jan. 31, 2007).

¹¹ Prior to 2007, FTC had limited authority to add products to EnergyGuide. In late 2007, Congress amended EPCA (42 U.S.C. §6294) to authorize the commission to prescribe labels for televisions and certain other consumer electronics, subject to specific provisions. 42 U.S.C. §6294(a)(2)(I). If DOE publishes applicable test procedures for those specified consumer electronics, the commission must issue disclosure requirements within 18 months of DOE's publication. Absent those procedures, the EPCA amendments give the commission discretion to require disclosures if it identifies adequate non-DOE testing procedures and finds that disclosures will likely assist consumers in making purchasing decisions. Regardless of whether DOE test procedures exist, the commission cannot require disclosures if those disclosures are not technically or economically feasible. 42 U.S.C. §6294(a)(2)(I)(iv). The amended law empowers the commission to consider other types of energy disclosures in lieu of traditional product labels for these consumer electronics. 42 U.S.C. §6294(a)(2)(I)(i). Finally, the amendments provide the commission with authority to require labeling or other disclosures for any other consumer product if the FTC determines such labeling is likely to assist consumers in making purchasing decisions.

¹² GAO, *Energy Efficiency: Opportunities Exist for Federal Agencies to Better Inform Household Consumers*, [GAO-07-1162](#) (Washington, D.C.: Sept. 26, 2007).

EnergyGuide program. DOE and FTC took steps to implement this recommendation, including defining certain terms that would provide a basis for expanding product categories in the future. In addition, during the course of our current work, officials from FTC told us they take steps to consider new products, including soliciting suggestions from stakeholders during the rulemaking process, accepting petitions from interested parties, and coordinating with DOE and Energy Star officials. While FTC has not added any new products since 2011, officials told us that they routinely consider new product categories. For example, the agency considered requiring an EnergyGuide label for personal computers but determined that variations in the components used to assemble computers and the lack of a standard testing procedure were barriers. Like the federal minimum efficiency standards, the scope of product categories covered under EnergyGuide has largely been determined by statute, and FTC must go through a rulemaking process to expand the scope of the program.

- EPA has expanded Energy Star from its initial coverage of computers and monitors to include many more product categories. For example, it added new products, such as residential heating and cooling equipment, then continued to add product categories through the 1990s and 2000s—for example, clothes washers in 1997, ceiling fans in 2001, and water heaters in 2009—so that Energy Star now includes 37 household appliance and consumer electronic product categories. Because Energy Star is a voluntary program that does not engage in the same formal rulemaking process as the other two programs, it can add product categories more easily and has added many product categories.¹³

Federal Energy Efficiency Programs Are Fragmented and Overlap and Have One Area of Duplication

Federal programs to increase the energy efficiency of household appliances and consumer electronics are fragmented because more than one federal agency is involved in the same broad area of national need; they overlap because the three programs have similar goals and target similar users. The programs are not broadly duplicative because they are not engaged in the same activities and do not provide the same services, and the agencies coordinate on key decisions related to meeting their

¹³ According to EPA documents, Energy Star product categories can be added where standards contribute to significant energy savings for products that fit consumer needs and are cost-effective over “a reasonable period of time.”

common overarching goal of improving energy efficiency. However, we identified one duplicative activity within Energy Star program.

Fragmentation. Federal programs to improve energy efficiency for household appliances and consumer electronics are fragmented because three federal agencies are addressing the same broad area of national need—in this case, improving energy efficiency. In March 2011, we reported that fragmentation has the potential to result in duplication of resources.¹⁴ For example, fragmentation can lead to technical or administrative functions that could be shared among programs instead being managed separately by each agency. However, we have also reported that fragmentation is, by itself, not an indication that unnecessary duplication of efforts or activities exists. In the case of these three programs, each agency collects its own data on the products covered by its program,¹⁵ but we did not find evidence that the independent data collected by each agency adversely impact the effectiveness of these programs. Moreover, agency officials told us they are working to share data with one another. For example, FTC officials told us that they are formally working with DOE officials through the rulemaking process to create a single database that manufacturers will use to submit the information required for both agencies.

Overlap. Federal programs to foster energy efficiency for household appliances and consumer electronics overlap because the three programs have the shared goal of encouraging energy efficiency of household appliances and consumer electronics and target similar users, namely consumers of these products. However, we have reported in the past that overlapping programs may be aligned in a way that they are complementary. In the case of these three programs, we found that their differing approaches may have complementary functions—with the minimum efficiency standards setting a minimum level of efficiency for all products in a category, EnergyGuide providing specific information about estimated energy consumption and costs to help consumers select the product that best meets their need within this range, and Energy Star

¹⁴ GAO, *Opportunities to Reduce Potential Duplication in Government Programs, Save Tax Dollars, and Enhance Revenue*, [GAO-11-318SP](#) (Washington, D.C.: Mar. 1, 2011).

¹⁵ For instance, each agency collects data on the annual energy use of refrigerators in terms of kWh per year.

identifying a group of the most energy efficient models—generally the top 25 percent— within a given category of products.

Duplication: The efforts of the three programs to improve energy efficiency for home appliances and consumer electronics are not broadly duplicative in that they are not engaged in the same activities or providing the same services; however, we identified one duplicative activity within the testing activities undertaken to support the Energy Star program. EPA officials told us that two levels of testing occur within the Energy Star program—qualification testing to determine if a product is eligible to display the Energy Star label and verification testing to confirm that products using the Energy Star label in the marketplace continue to meet Energy Star specifications. We identified some duplication in the verification testing activities. Specifically, DOE and EPA have separate verification testing efforts that, in themselves, are not duplicative, but we found some instances in which both agencies tested identical product models in the same year.

- DOE’s Energy Star verification testing activities were initiated in 2010 and are funded and managed by the department, though the actual testing occurs at third-party laboratories. According to DOE officials, every 4 to 6 months, DOE typically selects for testing from 100 to 200 different models across various product categories including household appliances and consumer electronics. DOE tests only Energy Star products that are also subject to federal minimum efficiency standards, allowing the agency to monitor compliance with both programs.
- EPA’s Energy Star verification testing activities were initiated in 2011 and are funded by the program’s partners—primarily appliance and electronics manufacturers. The testing is conducted at EPA-recognized laboratories, and the results are verified by EPA-recognized certification bodies.¹⁶ At a minimum, EPA requires that the

¹⁶ In 2010, EPA developed and instituted new testing procedures for products to qualify for Energy Star recognition. Under these procedures, there are EPA-recognized test laboratories and certification bodies that manage a manufacturer’s involvement in the program. All manufacturers that want to participate in the Energy Star program must have their products tested at EPA-recognized laboratories, and the results of these tests must be certified by an EPA-recognized certification body. According to EPA officials, this structure largely removes EPA from the testing and certification process, and installs it in more of an oversight and brand-management role. The new procedures took effect in January 2011.

certification bodies test 10 percent of the models within a product category each year (e.g., 10 percent of all computers) from all product categories for which they have certified results. EPA officials told us they select half of the models tested based on an approximation of which products are the highest selling. The certification bodies select the other half at random from among the products they have certified.

Officials from both DOE and EPA told us that they work closely to coordinate their efforts; however, we examined DOE and EPA verification testing data for a total of 1,238 tests during 2011 and a portion of 2012 and found 11 instances—about 1 percent of the products tested—in which identical models were tested in the same year under the testing done for EPA and DOE.¹⁷ In discussing this information with EPA and DOE officials, we determined that this duplication occurred because the two agencies do not fully coordinate and share information about the products they plan to test. In particular, EPA does not have information about the products its certification bodies select for testing; therefore, it cannot communicate this information to DOE before DOE selects products for testing. EPA officials told us that, in March 2012, they instituted a protocol through which they communicate to DOE twice yearly the results of the certification body testing to minimize the potential for duplication in their testing activities. EPA informs the certification bodies as to which products it has selected for testing, so no duplication should occur between the models EPA selects and the models the certification bodies select. However, the certification bodies do not inform EPA as to the models they select for testing until after that testing has taken place; therefore, EPA officials cannot share information with DOE about which models the certification bodies have tested until after the conclusion of the certification bodies' testing. Without this information, DOE may continue to select the same models; therefore, some models may continue to be tested twice while other models go untested. As a result, the agencies cannot coordinate to ensure that scarce testing resources are maximized, either by eliminating unnecessary duplicative testing, or reallocating resources toward testing additional products.

¹⁷ DOE provided data on a total of 195 verification tests on household appliance or consumer electronics products—77 tests during 2011 and 118 tests as of January 2012. EPA's verification testing data included a total of 1,043 verification tests that its recognized laboratories conducted on household appliance or consumer electronics products—686 tests in 2011 and 357 as of June 2012.

Conclusions

Three key federal programs to foster energy efficiency in household appliances and consumer electronics—the federal minimum efficiency standards, the EnergyGuide product labeling program, and the Energy Star voluntary product labeling program—each perform valuable functions in improving energy efficiency. While these three programs are fragmented and overlap, the officials managing these programs have undertaken efforts to mitigate the potential consequences of fragmentation and overlap by collaborating to achieve their common overall goal of improving the energy efficiency of these products. Further, given the differing missions of the programs, we believe they are not broadly duplicative, and that the sum total of the three efforts provides more value than would any one of the three alone. Nonetheless, because EPA does not have timely information about the products that certification bodies have selected for testing, it cannot regularly communicate to DOE the models selected for testing to support the Energy Star program. As a result, the two agencies have tested identical models of some products in the same year. By not coordinating to identify and eliminate these duplicative activities, the agencies may be missing opportunities to better allocate testing resources, by either allowing more models to be tested or by simply eliminating unnecessary testing costs.

Recommendation for Executive Action

To limit the potential for duplication in the current Energy Star verification testing activities, we recommend that the Administrator of EPA develop a process that helps ensure that the Energy Star certification bodies communicate the models they randomly select for testing to EPA and DOE as quickly as possible so that DOE can avoid selecting the same models.

Agency Comments and Our Evaluation

We provided a draft of this report to FTC, DOE, and EPA for comment. FTC provided no comments. We received written comments from DOE and EPA on the draft report, which are summarized below and reproduced in appendixes I and II, respectively. Both agencies acknowledged the importance of coordinating their verification testing activities. DOE neither agreed nor disagreed with our recommendation. EPA agreed with our findings but disagreed with our draft recommendation and stated that it was concerned that it would be labor intensive to collect information from the certification bodies. As an alternative to our recommendation, EPA proposed that it work with DOE to develop a process to improve verification testing while minimizing burden but did not offer specific plans to better coordinate. We maintain that coordination must involve all of the entities charged with testing

products, including the certification bodies. We modified the recommendation to clarify that EPA has flexibility to find an efficient process for the certification bodies to share the information.

We are sending copies of this report to the Secretary of Energy, the Acting Administrator of the Environmental Protection Agency, the Chairman of the Federal Trade Commission, the appropriate congressional committees, and other interested parties. The report also is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have questions about this report, please contact me at (202) 512-3841 or ruscof@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix III.



Frank Rusco
Director, Natural Resources and Environment

Appendix I: Comments from the Department of Energy



Department of Energy

Washington, DC 20585

March 20, 2013

Mr. Franklin Rusco
Director
Natural Resources and Environment
U.S. Government Accountability Office
441 G Street, N.W.
Washington, D.C., 20548

Dear Mr. Rusco:

The Department of Energy (DOE) welcomes the opportunity to respond to the action recommended by the U.S. Government Accountability Office (GAO) in its draft report on appliance standards and the potential overlap with other Federal programs involving appliance efficiency. DOE recognizes America's national interest in sound management of energy efficiency, including appliance standards. The Department of Energy's Office of Energy Efficiency and Renewable Energy Building Technologies Office has reviewed the report, and its response to the GAO recommendation is detailed below.

The report recommends the following action:

- To limit the potential for duplication in the current Energy Star verification testing activities, we recommend that the Administrator of EPA require the Energy Star certification bodies to communicate the models they randomly select for testing to EPA prior to the actual testing on a regular basis. EPA should then, in turn, communicate the models selected to DOE so that DOE can avoid selecting the same models.

Since the September 2009 when Memorandum of Understanding between DOE and EPA regarding the roles and responsibilities with respect to the Energy Star program was put into place, the Agencies have strived to coordinate all activities with the goal of achieving energy savings for consumers and verifying that products with the Energy Star label are delivering the savings claimed. DOE recognizes the importance of not duplicating efforts across Agencies and will continue to work with EPA to avoid selecting those models randomly selected by Energy Star certification bodies, as well as those selected by EPA, in order to prevent testing duplication between DOE and the Energy Star certification bodies. As the report indicates, the fact that there is a less than one percent duplication rate at this time suggests that DOE and EPA have coordinated, and will continue to coordinate model selection to avoid duplication.



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**Appendix I: Comments from the Department of
Energy**

DOE appreciates the contribution GAO has made to an important policy dialogue through its report on appliance standards. We look forward to continuing to work with GAO on helping the federal government meet its energy goals for the non-federal sector. If you have any questions concerning the report or our response, please contact me or Roland Risser, Program Manager, Building Technologies Office at (202) 586-9127.

Sincerely,



Kathleen B. Hogan
Deputy Assistant Secretary
For Energy Efficiency
Energy Efficiency and Renewable Energy

Appendix II: Comments from the Environmental Protection Agency



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 20 2013

OFFICE OF
AIR AND RADIATION

Mr. Alfred Gomez
Action Director
Natural Resources and Environment
U.S. Government Accountability Office
4th & H Street, N.W.
Washington, D.C. 20548

Dear Mr. Gomez:

Thank you for the opportunity to review and comment on GAO's draft report, "Better Coordination among Federal Programs Needed to Allocate Testing Resources" GAO-13-135. The purpose of this letter is to provide the U.S. Environmental Protection Agency's response to your recommendation. While the EPA generally agrees with the GAO's findings, the Agency disagrees with the report's recommendation.

This report examines three key federal programs involved in advancing energy efficient consumer products – federal minimum efficiency standards, the Energy Guide label and ENERGY STAR. Based on its review, GAO found that officials managing these programs have taken steps to mitigate the potential consequences of fragmentation and overlap by collaborating towards a common goal. Given the differing missions of the programs, GAO found that they are not broadly duplicative and that the sum total of the three efforts provides more value than would any one of the three alone. That said, GAO found some amount of duplication in the verification testing of products performed under the ENERGY STAR program and that performed by the U.S. Department of Energy (DOE).

GAO Recommendation

To limit the potential for duplication in the current ENERGY STAR verification testing activities, we recommend that the Administrator of EPA require the ENERGY STAR certification bodies (CBs) to communicate the models they randomly select for testing to the EPA prior to the actual testing on a regular basis. The EPA should then, in turn, communicate the models selected to DOE so that DOE can avoid selecting the same models.

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Appendix II: Comments from the
Environmental Protection Agency

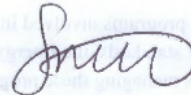
EPA Response

The EPA shares GAO's interest in minimizing verification testing duplication but is concerned that the GAO recommendation is very labor intensive. The EPA recommends that EPA and DOE work together to develop a process to improve verification testing while minimizing burden. Taking these steps would be more effective than collecting model information from multiple CBs prior to testing, particularly since that information is not needed for any other purpose and would impose unnecessary additional burden on CBs and the Agency.

Background: In March of 2012, in the midst of GAO's review, the EPA initiated a coordination protocol with DOE that involves the exchange of model information multiple times a year for the express purpose of avoiding duplication. Based on the first year's experience with this protocol, the EPA and DOE have begun to think of ways to improve the process. The EPA and DOE will work together to improve verification testing coordination.

Thank you, again, for the opportunity to review this draft report. If you have questions, feel free to contact Ann Bailey, ENERGY STAR Products Branch Chief, at (202)-343-9023.

Sincerely,



Gina McCarthy
Assistant Administrator

cc: EPA GAO Liaison Team
Maureen Hingeley, OAR

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

Franklin Rusco, (202) 512-3841 or ruscof@gao.gov

Staff Acknowledgments

In addition to the individual named above, Jon Ludwigson, Assistant Director; Emily Norman; Alison O'Neill; Stuart Ryba; Karla Springer; and Barbara Timmerman made key contributions to this report.

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