

REF No.	Topic	Comment	EPA Response
1	Available Technology	<p>Commenter disagrees with the impact of certain features in relation to compact refrigerators specifically. While larger products may have options available in Variable Speed Compressors and improved efficiency compressors those are very limited to non-existent in the 300-500 BTU/Hr range that many compacts use. Other technologies such as VIP panels and DC fans are not as viable an option to smaller manufacturers due to costs at low volumes as well.</p>	<p>The intent of presenting different technologies within the Framework document appendix was to show that there are a variety of design options for increasing efficiency in refrigerators and freezers. EPA appreciates this feedback on current limitations for smaller, compact refrigeration products. EPA encourages stakeholders to share additional information that would enable the Agency to better assess the efficiency opportunities for compact refrigeration products.</p>
2	Connected	<p>Commenter opposes non-ice maker units having to comply with the "delay defrost and reduce average wattage by 9.6W" option. Since non-icemaker models cannot comply with "delay defrost and delay ice harvest", they will be forced to reduce 9.6W during this period. The 9.6W number originates with the estimated ice maker energy; non-ice maker models have achieve this reduction. Requiring non-ice maker models to reduce an additional 9.6W is doubly burdening the units. In addition, the wattage reduction must be defined as a relative value (percentage) and not as an absolute value (watts) so as not to discriminate against energy efficient</p>	<p>In the Draft 1 V5.0 specification, the Delay Appliance Load Reduction capability has been changed from specifying products must reduce average wattage by a fixed amount (9.6W) to instead requiring average energy consumption be reduced by a percentage of the product's measured baseline energy consumption (as measured in the DOE test procedure). EPA agrees with the commenter that this change enables products with different baseline consumptions to be treated in a more equitable manner.</p>
3	Connected	<p>Several commenters expressed they do not support the five percent allowance for refrigerators and freezers with smart grid functionality. Commenters noted concerns with cost-effective in the near term and will not provide adequate financial benefit to consumers. An energy efficiency credit for demand response functionality would sacrifice known benefits in the short term, for uncertain benefits in the future, at the customer's expense. Further, it would jeopardize our ability to reach California's environmental goals as legislated in Assembly Bill (AB) 1109 and AB 32. While the energy and cost savings from energy efficiency are well established, and accrue without any action by the customer, the financial benefits and peak demand savings of smart, DR capable appliances will depend on a number of unknown future</p>	<p>As outlined in the Framework, EPA is proposing an allowance for "connected" functionality as an incentive to help jump-start the market for refrigerators and freezers with functionality that delivers near term consumer value, while facilitating broader electric power system benefits. The approach bundles consumer-oriented enhancements, such as the ability to interface with an energy management system, with demand response functionality that consumers could opt to leverage in the future to save money on their energy bills, once the supporting infrastructure is built. The proposed functionality can also provide near term demand benefits to the grid, through an embedded delay defrost capability that would automatically shift defrost from peak to non-peak periods of the day.</p>

4	Connected	<p>Commenter does not support the five percent energy credit for smart appliances because the appliance itself does not consumer less actual energy for the same function just by being smart, and because in some circumstances, the actual energy consumption of a smart appliance can be greater due to interruption and restart of cycles, or additional energy storage at the appliance. Commenter was concerned credit would penalizes energy efficient appliances without Smart functionality, e.g., a non-Smart refrigerator just below the ENERGY STAR threshold will display a higher efficiency than some ENERGY STAR qualified Smart refrigerators.</p> <p>Commenter also expressed concern that the credit could mislead consumers regarding the energy efficiency of the product. A 5% credit, coupled with the consumer override function, will allow less efficient products to become eligible for tax credits and other incentives. Additionally, not all utilities will be ready for dynamic utility rates and Smart Grid, so many consumers will receive Smart Grid incentives even though no utility infrastructure is in place. With the 5% credit, ENERGY STAR marks will no longer represent the top 25% of energy efficient products.</p>	<p>See response #3. EPA also notes that the energy efficiency of a model relative to a chosen baseline (such as the model's Federal standard level), is based on the product's rated annual energy consumption and would not be affected by the proposed allowance. In this Version 5.0 revision, EPA is strengthening ENERGY STAR criteria so that qualified models continue to deliver superior energy efficiency. For example, a bottom-mount freezer with through the door ice that also utilizes the 5 percent allowance, would still use about 27% less energy than a the same model that just meets the Federal standard.</p> <p>EPA also encourages stakeholders to share more specific information and data on instances where cycle interruption and restart, or additional energy storage may increase energy consumption, so that EPA can work with stakeholders to further consider those cases.</p>
5	Connected	<p>It is questionable to assume 3-6% behavior based energy savings due to energy information feedback. This savings, obtained from an American Council for an Energy-Efficient Economy meta-analysis, is not due to operational improvements in an individual appliance but rather to new appliance purchases. Consumers with energy feedback are prompted to purchase more efficient appliances in the future.</p>	<p>In the Draft 1 V5.0 specification, EPA has proposed additional criteria for "connected" refrigerators and freezers, specifying that they communicate energy consumption to external devices and applications via a communication link. Providing consumers with access to new real-time product-level energy use information can empower them to take steps to reduce energy use (e.g., fewer and/or shorter door openings, lower temperature setting, repair based on alert of a malfunction that is reducing operating efficiency). For example providing consumers with energy information over the lifetime of the product could help them know when to consider replacement. EPA is interested in additional information and data the benefits and savings associated with appliance-level feedback.</p>

6	Connected	<p>Any demand response benefit should be accounted for separately from energy efficiency and should be specific to the product of interest and the climate zone, not a general number applied across multiple products. Because of their largely flat load profile and even diversified load, refrigerators and freezers may not create demand savings large enough to offset the energy savings lost from relaxed energy efficiency. Thus, a “readiness measure” program offering, such as one offering a DR incentive before residential programs are in place, is more difficult to justify given that the potential savings seem small and not yet fully known.</p>	<p>In Draft 1, EPA has specified "connected" products have an embedded delay defrost capability that could automatically (communications not necessary) avoid defrosting during traditional periods of peak energy consumption. This capability does not require interconnection with the Smart Grid and thus can provide grid benefit as soon as these products are put into service. EPA estimates that this function, deployed across 1 million refrigerators could reduce provide peak reductions (3-7pm) of about 3.5 megawatts (MW) and would shift approximately 8.4 gigawatt-hours (GWh) annually from peak to non-peak periods. EPA anticipated additional grid benefits could be realized from the DR capabilities propose in Draft 1, once supporting infrastructure is built. EPA does not plan to estimate benefits from DR capable refrigerators by climate zone.</p>
7	Connected	<p>The approach that the EPA has proposed for the Room Air Conditioner Draft 2 ENERGY STAR Specification (v3.0) would be more appropriate for refrigerators and freezers. This approach includes optional criteria for smart grid capable designation, which would allow the EPA to highlight “smart grid capable” products on the Qualifying Products List. This approach would distinguish smart functional products for consumers without compromising the energy savings that is provided by ENERGY STAR. By maintaining the savings due to energy efficiency, this approach would also allow incentive programs to justify the cost spent to support ENERGY STAR products. These programs would be able to provide an incentive for smart functional products separately or in addition to an incentive for the energy savings alone.</p>	<p>EPA appreciates the support for the approach outlined in the Room AC Draft 2 specification. The Draft 1 refrigerator and freezer specification reflects EPA's intent to use this approach to recognize refrigerators and freezers with "connected" functionality on the ENERGY STAR Qualified Product List, so that that consumers, rebate programs and other interested stakeholders can better identify and advance these products into the market.</p>

8	Connected	<p>From a utility DR program perspective, the necessary data relevant to energy management will include: The diversified total load before the event. The diversified total load during the event (reduced load). The length of time the utility can expect to sustain the load reduction. While other appliance operational data such as refrigerator compartment temperature is useful, it is not necessary for the utility to have such data to manage a strictly DR program.</p>	<p>In the Draft 1 V5.0 specification, the optional "connected" criteria address capabilities for home energy management, embedded delay defrost, and demand response (DR), as well as open standards and information to consumers. Criteria for DR include responses to two types of requests from a system operator. The "connected" appliance would need to be capable of receiving, interpreting and responding to these requests, but is not required to report to the system operator, its load either within or outside of load reduction periods. Products would be required to share information, such as energy consumption feedback, with consumers via a communication link.</p>
9	Connected	<p>Strongly support customer control over their appliance, and customer ownership of private appliance operational data. Response to a demand event will always need to be authorized by the customer. However, there may be situations in which a customer agrees ahead of time to let the utility quickly reduce their appliance's load during an emergency event, or in response to a call for spinning reserves. This will require remote control of the appliance, either authorized at the time of the event or preauthorized by the consumer. In such a case, a customer may sign a participation agreement or permission form with the utility.</p>	<p>EPA agrees and believes that DR criteria included in the Draft 1, V5.0 specification support the proposed use case.</p>

10	Connected	<p>Smart Grid functionality should be established based on product performance, which is tied into food safety parameters. To avoid impacting product performance, any communications module within the appliance should be programmed to operate the appliance in a manner consistent with its available load. It is reasonable to expect that, for refrigerators and freezers, the only significant form of load shifting is the energy used in ice making and defrost cycles, and the significant form of short-term spinning reserve availability is in brief temperature increases.</p> <p>Another possibility is to allow delay or reduction of load for as long as the refrigerator food remains at safe temperatures and the frozen food remains below the temperature to preserve the quality of the most vulnerable foods. Commenter also suggests EPA anticipate incorporating an adjustment in energy use rating reflecting refrigerators that can sustain food qualify for longer periods of time due to superior thermal insulation, gaskets, and other engineered design advantages.</p>	<p>EPA agrees that any additional functionality enabled through connectivity must not adversely impact the product's performance. In the Draft 1, EPA has included language, developed with input from appliance manufacturers, that states food preservation must not be impacted. At this point in time, EPA does not plan to incorporate any adjustment in the energy use rating for those refrigerators that can sustain food for a longer period of time.</p>
11	Connected	<p>Objects to requiring smart grid enabled appliances only for ENERGY STAR consideration. The cost justification for the energy savings on a refrigerator could not be demonstrated to a consumer for the energy that would be saved. Agree that an acceptable approach would be to allow for a 5% adder for refrigerators with this functionality. The type of interface must be kept simple in order for manufacturers to implement this at a low cost-making it a viable alternative for consumers.</p>	<p>In Draft 1 V5.0, EPA is proposing a set of <i>optional</i> "connected" criteria for refrigerators and freezers. However, products would not need to meet these criteria in order to qualify for ENERGY STAR. The Draft 1 reflects EPA's intention to leverage the two complementary options discussed in the Framework. See also, response #3.</p>

12	Connected	<p>Commenter observes that at this time less than one percent of households have access to the technologies, such as smart meters and time of use pricing, which would let them take advantage of any monetary savings due to the smart-grid enabled appliance. Consumers should not be forced to subsidize smart grid enabling technologies through the back door of the ENERGY STAR program, especially since smart grid features alone will not lead to direct savings for consumers.</p>	<p>As outlined in the Framework, EPA is proposing to help jump-start the market for refrigerators and freezers with functionality that delivers near term consumer value, while facilitating broader electric power system benefits. The approach bundles consumer-oriented enhancements, such as alerts and feedback on the product's energy use, with demand response (DR) functionality that consumers could opt to leverage in the future to save money on their energy bills, once the supporting infrastructure is built. All ENERGY STAR qualified products, including the sub-set that use the proposed allowance, will continue to deliver superior energy efficiency. And products with future-oriented DR capabilities will also provide consumers with new energy-savings and convenience features.</p>
13	Connected	<p>Commenters believe the factors assumed in the Pacific Northwest National Laboratory's (PNNL) cost-benefit analysis, even under the "pessimistic" scenario, are overly optimistic in the near future. Recent data from programs [implemented by several California Investor Owned Utilities] on residential demand response for air conditioner cycling, and time of use (TOU) rates, indicate lower rates of consumer response, participation, and far fewer events per year., The assumption that a demand response program will reduce refrigerator load for the majority of the year is questioned. A 2009 review of the CA IOU residential air conditioners cycling programs, found that the most peak reduction events called in 2009 in one territory were seven separate events in SDG&E's territory. SDG&E found that 30-40% of consumers chose to override the response. Under PG&E's residential AC cycling program, a maximum of 15 events are called each year.</p>	<p>EPA appreciates this recent data for residential AC demand response programs in California. EPA is also very interested in further information on findings from future appliance DR pilot programs and encourages stakeholders to share this data as it becomes available. In the Draft 1 V5.0 specification, EPA has proposed an allowance to serve as an incentive to jump-start the market for refrigerators and freezers with functionality that delivers near term consumer value, while facilitating broader electric power system benefits.</p>

14	Energy Use Criteria	<p>Several commenters expressed concern about EPA's proposal to set levels that would collapse together several product classes and strongly opposed the proposed new approach. Some noted the approach adds unnecessary burden and complexity to an already complex regulatory schedule for refrigerator/freezers. The cumulative regulatory burden on manufacturers of refrigerator/freezers is mounting, and adding this new collapsed product class approach to the ENERGY STAR program, which though technically voluntary is, owing to the success of the government-industry partnership, effectively mandatory, as qualification has become a quid pro quo, to compete in the market, only adds to that burden.</p>	<p>EPA is proposing a set of levels that reduces the differences in allowable energy-use among qualified model types, through more challenging levels for the largest and most energy-intensive refrigerator-freezer configurations, but has retained separate product classes for top freezers, bottom freezers and side-by-sides. With the aim of helping to reduce burden on manufacturers, EPA has also suggested the possibility of specifying a Version 6.0 levels through the current stakeholder process. EPA believes this approach could provide manufacturers with greater certainty while they are re-designing and re-tooling in preparation for the 2014 standards.</p>
15	Energy Use Criteria	<p>The commenter cited that the proposed approach inappropriately varies from the DOE's product class approach, and the difference causes significant issues in setting levels and in ensuring, upon the change in the federal minimums in 2014/2015, that there is no increase in the stringency of the ENERGY STAR levels and that the levels account for changes to measured energy in the test procedure. Commenter question how EPA will determine appropriate levels if product classes are conflated, noting that it is likely that a detailed analysis similar to the analysis DOE does to set standards would be required, and because the approach differs from DOE's, EPA would not be able to rely on the substantial amount of work DOE has done in setting standards levels</p>	<p>In light of new DOE standards and test procedures for refrigerators, refrigerator-freezers, and freezers that manufacturers will be required to comply with beginning September 15, 2014, EPA anticipates that the ENERGY STAR requirements will need to be updated at that time. EPA believes it may be helpful for Version 6.0 levels to be developed through the current specification process, to provide industry with greater certainty during a time they are undergoing a significant re-design in preparation for the new standards. EPA is requesting comment on this approach, recognizing that if this approach were taken, EPA would plan to seek data based on the revised test procedure to inform level setting.</p>

16	Energy Use Criteria	<p>If EPA is going to apply "absolute energy use" criteria to larger, more fully featured units, it must do a holistic analysis of the energy use and environmental impact of all units, including the impact that heat leakage has on measured energy is greater under the test conditions than it is in the field because of differences in ambient temperature. Refrigerator-freezers with through-the-door ice (and water) make it so that consumers open the refrigerator or freezer door less frequently. The difference between products with and without through-the-door ice is not accounted for in the refrigerator/freezer test procedure, which is a closed door test, meaning that it does not incorporate door openings. Door openings contribute significantly to energy use in the home. DOE's energy efficiency standards for refrigerator-freezers recognize these design differences and test procedure limitations through less stringent standards for products with through-the-door ice than for products without that feature. EPA does seem to recognize this in the Framework Document as it suggests that it could use a functional adder for this feature. Such an allowance is necessary. If EPA just continued with its current approach, it would not need to gather data and do an analysis of what that functional adder should be because the ENERGY STAR level would be based on the DOE levels which already take this into account.</p>	<p>In the Draft 1, EPA has proposed an allowance for products with through the door ice that accommodates the best performing models with this feature. Stakeholders are encouraged to share any data that they have collected or are aware of regarding how features such as through the door ice and water might reduce energy consumption of the unit in the field through fewer door openings. EPA notes it would also be important to consider how consumers' behavior (e.g., amount of ice used) might change by having access to a feature such as through the door ice as opposed to opening the freezer door to access ice.</p>
17	Energy Use Criteria	<p>If a consumer is forced to buy a smaller unit in order to get an ENERGY STAR unit, it is more likely that the consumer may buy more than one unit, or even worse, from an energy use perspective, keep their old unit in addition to the new unit. This negates the energy savings ENERGY STAR is trying to achieve.</p>	<p>The ENERGY STAR program helps differentiate, for consumers, which options are more energy-efficient and good for the environment. Under the proposed levels, consumers have a variety of choices among models of different size, configuration, and feature sets. EPA notes there are highly efficient models up to 26.5 cu-ft that could qualify. While some consumers do keep their old refrigerator in addition to the new refrigerator that they have purchased, EPA discourages this practice and recommends that consumers recycle their old refrigerator. EPA is also not aware of data on the linkage between the purchase of a smaller refrigerator and the increased likelihood of purchasing an additional unit or keeping an older unit.</p>

18	Energy Use Criteria	<p>If EPA makes it too difficult, or even impossible, for larger, more fully featured units to meet ENERGY STAR eligibility criteria, manufacturers will have less of an incentive to increase the energy efficiency of those units. Without an incentive to obtain the ENERGY STAR mark, it is likely that many, if not most, units that are now ENERGY STAR rated will revert to the federal minimums rather than improve efficiency above that level. That will result in lost energy savings opportunities.</p>	<p>As discussed in the Framework document, EPA believes there is a limit to how much energy use can credibly be designated as energy efficient and good for the environment. In Draft 1, EPA is proposing levels that continue to allow all full-size refrigerators to be eligible to earn the ENERGY STAR but become gradually more challenging for larger units, while also recognizing there is some additional energy requirement as refrigerators become bigger. Currently, there are refrigerator-freezers models as large as 26.5 cubic feet, with through the door ice, that can meet the proposed levels.</p>
19	Energy Use Criteria	<p>The current method for updating and strengthening ENERGY STAR criteria for refrigerators is unlikely to advance ENERGY STAR's goal of helping consumers identify the top 25 percent of refrigerators. In addition, the current method of specifying different energy allowances for specific configurations, i.e., side-by-sides, bottom freezers, top freezers, etc. confuses consumers. Because of these different allowances, consumers shopping for a refrigerator can and do find ENERGY STAR qualified units that use more energy than non-qualified units, which diminishes the credibility and effectiveness of ENERGY STAR designation. A new method should differentiate annual energy use of refrigerators and freezers irrespective of configuration.</p>	<p>In the Draft 1, EPA is proposing a set of levels that reduces the differences in allowable energy-use among qualified model types, through more challenging levels for the largest and most energy-intensive refrigerator-freezer configurations. This approach balances the basic ENERGY STAR program objective – to help consumers identify models irrespective of configuration, that use the least amount of energy – with our interest in preserving consumer choice by not excluding certain configurations.</p>
20	Energy Use Criteria	<p>From an energy savings perspective, it makes sense to craft a specification that improves the energy efficiency of the total sales-weighted “fleet” of ENERGY STAR rated refrigerator-freezers to achieve maximum energy savings. A specification level that sets one linear function of maximum energy consumption across product classes, may create additional energy savings by increasing the share of ENERGY STAR-eligible top-mount refrigerators.</p> <p>Commenter supports eliminating the adjustment for bottom freezer and side-by-side door configurations that allowed these appliances to qualify as ENERGY STAR with higher energy use per volume of interior space than top freezer and single door models.</p>	<p>See comment response #19.</p>

21	Energy Use Criteria	<p>Commenter requests that EPA provide a detailed explanation of exactly how it intends to accomplish a crosswalk when the standards levels change in 2014/2015 to ensure that the stringency of the levels set for 2013 do not change and to account for the change in measured energy due to the new test procedure. Commenter also encourages EPA to consult with DOE on the crosswalk developed between the old standards and new standards to account for the difference in measured energy, and how it can be applied to the ENERGY STAR levels EPA sets to be effective in 2013.</p>	<p>In light of new DOE standards and test procedures for refrigerators, refrigerator-freezers, and freezers that manufacturers will be required to comply with beginning September 15, 2014, EPA anticipates that the ENERGY STAR requirements will need to be updated at that time; Therefore a separately crosswalk of the Version 5.0 levels, to account for the test procedure change, would not be necessary. EPA is also discussing with DOE how DOE's cross walk calculations might be leveraged to help identify appropriate out year ENERGY STAR levels. If any crosswalk approach is used, EPA will share details of the methodology with stakeholders.</p>
22	Energy Use Criteria	<p>EPA should go further to inform consumers of the impact on the environment of using these products. Additional and meaningful information about the impact of product size can and should be provided to consumers thereby allowing them to make informed choices. EPA should study the carbon footprint of all units. For example, larger units may allow for fewer trips to the store, which could reduce the overall carbon footprint.</p>	<p>EPA's website provides a variety of tips for consumers regarding the energy and environmental impact associated with refrigerators and freezers. EPA continually looks for opportunities to enhance these tips. Stakeholders are encouraged to share suggestions and data that can be used to this end.</p>
23	Energy Use Criteria	<p>Recommends increasing the stringency of the criteria from 20 percent less energy than the minimum standard to 25 percent of the minimum standard.</p>	<p>EPA appreciates this feedback. The proposed Draft 1 levels enable a number of top-freezers that currently use 25 percent less energy than the DOE standard, to qualify. The proposed levels are more challenging for larger refrigerators and for more energy-intensive configurations.</p>
24	Foam Blowing Agent	<p>Commenter opposes the mandatory use of low-GWP foam-blowing agents in the ENERGY STAR 5.0 specification, since manufacturers would essentially be required to adopt hydrocarbon blowing agent technology, which would result in poorly insulated refrigerators and higher costs to manufacturers and consumers, while also introducing safety concerns during manufacture and end of life disposal. However, commenter would support a proposal encouraging low-GWP blowing agents through an offsetting allowance towards the ENERGY STAR listing. Also notes that if a low-GWP proposal is included, EPA should consider phasing in this requirement so that it takes effect no earlier than 2014.</p>	<p>EPA appreciates this feedback and has decided to defer consideration of this issue.</p>

25	Foam Blowing Agent	More advanced foams, such as HBA-2 are undergoing SNAP/PMN approvals and will have low-GWP qualities. These foams are not a volatile organic compound, allow for 18-20 percent more thermal conductivity, are non-flammable, and are more workable and cheaper to implement, since they would be a near drop in replacement. These more advanced foams will also have lower end of life management costs.	EPA appreciates this feedback and has not proposed this as a requirement in V5.0. EPA is deferring consideration of a possible foam blowing agent requirement.
26	Foam Blowing Agent	Supports requiring that refrigerators use foam made with low GWP chemicals (<GWP 25) and requiring low-GWP refrigerants (GWP<150) by January 1, 2014 or 24 months after the introduction of the first such products in each DOE product class (whichever is later).	EPA appreciates this feedback and has not proposed this as a requirement in V5.0. EPA is deferring consideration of a possible foam blowing agent requirement.
27	Foam Blowing Agent	Commenter objects to the use of a specific blowing agent. For smaller manufacturers and smaller product sales levels, it would be uneconomical or unavailable, and would preclude alternative technologies that may become available or may be more practical at smaller production levels.	EPA has not proposed a foam blowing agent requirement in Draft 1 and is aware new low GWP fluorinated alternatives are under development.
28	Other	EPA is encouraged to create a "Top Runners" designation within each product category modeled off of the successful Japanese Top Runners program. One or more models in each category may be designated Top Runner if they achieve energy efficiency within 5 percent of the model with the highest energy efficiency in that category.	In 2011, EPA launched a pilot program, Most Efficient, that aims to recognize the most efficient products in a category for consumers and has some similarities to the Japanese Top Runners program. This EPA pilot program currently covers refrigerators, clothes washers, televisions, and a number of HVAC products. EPA plans to extend this pilot program through 2012. More information on this program can be found on EPA's website at: www.energystar.gov/moste efficient .
29	Other	ENERGY STAR should give consideration to the economic costs of certifying a product as ENERGY STAR qualified. Certain smaller volume products are not always listed because the cost of qualification could not be recovered due to the small size of the market.	EPA is sensitive to the costs associated with certifying a product as ENERGY STAR qualified, especially for smaller manufacturers, and factors this into program decisions. As such, when establishing third party certification requirements, EPA looked to encourage competition with the intention of reducing costs and thwarting delays, worked with long standing partners with established programs and relationships like AHAM and others, and made allowances for use of accredited or supervised first party labs.

30	Out Tier	It would be helpful for EPA to set out-year specification revisions to give manufacturers increased certainty on future ENERGY STAR requirements. However, there is concern about setting ENERGY STAR requirements in December 2012 at levels significantly higher than the new DOE baseline for 2014 requirements.	In Draft 1, EPA has proposed new energy-use levels that recognize, approximately, the top 11% of refrigerators and freezers in the market. In light of the new Federal standards, EPA anticipates that the ENERGY STAR levels will need to be further strengthened in 2014 to ensure that the ENERGY STAR label continues to serve as a meaningful differentiator for consumers in the market once those standards become effective. In Draft 1, EPA is seeking feedback on whether the Agency should develop future Version 6.0 energy use requirements during this stakeholder process, to provide manufacturers with greater certainty as they plan and re-tool for the 2014 standards.
31	Out Tier	EPA should not follow a two-tiered approach for the revised refrigerator/freezer ENERGY STAR specification due to complexities in energy efficiency standards level changes in 2014/2015 and also the incorporation of measured ice maker energy soon after that.	See comment response #30.
32	Possible Sunsetting of Certain Product Classes	Revising the criteria for manual and partial defrost refrigerators, full-size freezers, compact refrigerators, and compact freezers is supported. Sunsetting these product categories would be inappropriate as there are a number of industries who are required to buy ENERGY STAR products that fall under these categories, including government agencies, the hospitality industry, and student housing at colleges and universities. To effectively eliminate continued energy efficiency improvement in certain product categories would likely produce the end result of gradually increasing energy consumption within certain markets; create considerable confusion among government and institutional buyers; and would serve to restrict competition in favor of large volume, major household appliance producers and retailers.	EPA appreciates this feedback. EPA has not proposed sunsetting these product classes in Draft 1 V5.0. EPA is interested in further information on the efficiency opportunities to continue to differentiate these products after new federal standards become effective in 2014, and looks forward to working with stakeholders to further consider potential levels.

33	Scope	Wine storage products and similar beverage center units should not be included in the ENERGY STAR program. EPA should wait for DOE to complete its rulemaking on these products before adding any wine storage or beverage center products to the ENERGY STAR program.	<p>For this Version 5.0 revision, EPA is proposing to formalize the Agency's current policy of not covering wine chillers in the ENERGY STAR residential refrigerator and freezer program. EPA believes there may be future opportunities for efficiency gains in this product class. EPA will be tracking DOE's future rulemaking for wine storage and related products and plans to further engage with stakeholders to discuss this opportunity.</p> <p>EPA is proposing that other refrigeration products that may be marketed as "beverage centers" or "beer refrigerators" be eligible for ENERGY STAR if they meet the applicable definition of an electric refrigerator.</p>
34	Scope	ENERGY STAR should be extended to cover wine refrigerators and beverage centers. Although wine chillers do not necessarily consume large amounts of electricity they are not particularly efficient either. The least efficient wine chiller uses twice as much energy as some other models and almost as much energy as an 18 cu-ft. refrigerator. The differentiation between typical refrigerators and products in these classes is the glass door, which typically uses more energy than foam doors. A solution to incorporating for this added energy is the addition of an "adder" for glass doors on all product categories, similar to the current ice maker proposal. The incorporation of an "adder" would streamline the requirements and allow for ENERGY STAR models with both solid and glass doors.	EPA appreciates this feedback on wine refrigerators and ideas on how glass door feature may be treated through future specification development work. In Draft 1 V5.0, EPA is proposing to formalize the Agency's current policy of not covering wine refrigerators in the ENERGY STAR residential refrigerator and freezer program. EPA believes there may be a future opportunity for efficiency gains in this class of products, but is going to defer this to future specification development efforts. EPA will be tracking DOE's future rulemaking for wine storage and related products and plans to further engage with stakeholders to discuss this opportunity.
35	Connected	If ENERGY STAR wants to illustrate additional environmental benefits besides energy efficiency, i.e., smart appliances or zero global warming potential foam blowing agents, this could be added as a sub-category to ENERGY STAR such as ENERGY STAR Smart or ENERGY STAR Green.	In Draft 1, EPA has proposed an approach that would recognize "connected" appliances that provide both long term grid and societal benefits as well as immediate consumers value through functionality such as feedback on energy consumption and alerts. This Draft 1 reflects EPA's intention to leverage the approach discussed in the Framework of highlighting products with this functionality on the ENERGY STAR Qualified Product List so that consumers, rebate programs and other interested stakeholders can better identify and advance these products into the market. EPA has no plans to offer a separate label for "connected" functionality.