

**ENERGY STAR® for Refrigerated Vending Machines**  
**Rebuilt Machine Specification**  
**March 2, 2006**

**DRAFT 2**

This Draft 2 document represents EPA's proposed approach for addressing rebuilt vending machines under the current ENERGY STAR Specification for Refrigerated Beverage Vending Machines. This Draft 2 incorporates comments received on the previous Draft 1 document as well as comments made during EPA's meeting with the National Automatic Merchandisers Association (NAMA) Energy Committee on October 26, 2005. In addition, this Draft has been reorganized to reflect typical ENERGY STAR Program Requirements in terms of Partner Commitments and Eligibility Criteria. Once finalized, these elements will be incorporated into the existing ENERGY STAR Specification as appropriate, thereby making rebuilt machines eligible for ENERGY STAR. All stakeholders are encouraged to provide feedback on this Draft 2 document to Rebecca Duff, ICF Consulting, at [rduff@icfconsulting.com](mailto:rduff@icfconsulting.com) by **March 30, 2006**.

The refurbishment center (RC) performing the rebuilding and the original equipment manufacturer (OEM) qualifying and supplying the energy-efficient rebuilding kit(s) will be required to become ENERGY STAR Partners by signing an ENERGY STAR Partnership Agreement. The OEM will be responsible for identifying models and their respective kit(s), testing the energy consumption of the combinations, and submitting this information to EPA for review. The RC will be responsible for rebuilding the machines according to OEM instruction and labeling them as ENERGY STAR. These roles are described in more detail below.

### **Partner Commitments**

Each ENERGY STAR partner will be required to meet the same Partner Commitments included within the current ENERGY STAR Program Requirements for Refrigerated Beverage Vending Machines (e.g., specification) found directly at the following URL:

[www.energystar.gov/ia/partners/product\\_specs/program\\_reqs/vending\\_prog\\_req.pdf](http://www.energystar.gov/ia/partners/product_specs/program_reqs/vending_prog_req.pdf).

In addition, the following commitments will apply specifically to rebuilt machines:

- Each completed ENERGY STAR qualified rebuilt vending machine will receive a "refurbishment label/sticker" that includes the following information to indicate that the machine has been upgraded to ENERGY STAR performance levels: (1) a new and discrete model number that is representative of that machine and rebuilding kit combination; (2) the date of remanufacturing; and (3) the ENERGY STAR certification mark. The OEM must provide to EPA the model numbers, along with the tested performance levels, for those machines that when rebuilt with certain energy saving rebuilding kits, identified by the OEM and specific to each machine model, can qualify for ENERGY STAR.
  - If there is any variance in the engineering of the host machine and/or components used to upgrade the machine, the OEM or RC will need to test and qualify the combination separately. Each rebuilt machine model number should be distinct and representative of a particular model and rebuilding kit combination. For example, the OEM may submit multiple component and/or rebuilding kit options for one vending machine model but each combination must be supported by individual test results and represented by separate model numbers.
- EPA reserves the right to request additional information on ENERGY STAR qualified rebuilt machines should an issue arise regarding their performance and qualification.

**Note:** Based on conversations with industry representatives, there appears to be a number of ways in which fields may be added or changed within the existing remanufacturing tracking system. By proposing the creation and inclusion of a new model number, along with the placement of the ENERGY STAR mark, on the remanufactured label, EPA hopes that qualified machines will be easily identified on-site and compared to the ENERGY STAR Qualifying Products (QP) list. EPA envisions a list of qualified rebuilt machines much like the current QP list for new machines. Also similar to new machines, EPA sees the importance of being able to track rebuilt date on qualified rebuilt machines.

## Eligibility Criteria

**Definitions** – the following definitions will be added to the ENERGY STAR Program Requirements

- **OEM:** Original Equipment Manufacturer
- **Rebuilt refrigerated beverage vending machine:** a UL Listed or Classified model that has been previously in use and subjected to various degrees of retrofitting, remanufacturing, refurbishing, repairing, or reconditioning for resale or reuse.
- **Refurbishment Center (RC):** a facility equipped to rebuild vending machines
- **Rebuilding kit:** a combination of components that may be installed in a previously used vending machine at a refurbishment center.

**Note:** Many terms are used to explain upgrades to existing vending machines, including: refurbished, remanufactured, retrofitted, and rebuilt. A suggestion was made to start with the UL definition and revise as necessary for purposes of ENERGY STAR. It is EPA's intention to develop a definition that requires key component change-outs in order to meet the ENERGY STAR specification levels, as opposed to simple repair or reconditioning (e.g., cleaning, direct part replacement, cosmetic repair) to existing machines.

## Energy-Efficiency Specifications for Qualifying Product

- Rebuilt vending machines will be expected to meet both the energy consumption and low power mode requirements of the current ENERGY STAR Specification for Refrigerated Beverage Vending Machines.

## Qualification and Certification Procedures for Rebuilt Vending Machines (to be inserted between Sections 4 and 5 in the current ENERGY STAR Specification)

- The OEM will be responsible for identifying and testing each component and/or rebuilding kit within each machine model to determine which combination(s) will meet the ENERGY STAR energy-efficiency specifications. It is also the responsibility of the OEM to verify UL Listing or equivalent for each component.
- The OEM must test a representative machine for each model and component combination to ASHRAE Standard 32.1-2004 and report the results to EPA using the Refrigerated Beverage Vending Machines QPI form for review. Once EPA has approved the rebuilt model, the OEM may begin supplying RCs with the energy-saving components and/or "kits" along with a list of machine models, as applicable for ENERGY STAR qualification, and installation guidelines.
- When rebuilding machines for ENERGY STAR qualification, the RC must use only those components that: (1) are supplied by an ENERGY STAR OEM partner; (2) have been tested and approved for use in specific ENERGY STAR configurations, as identified by the OEM; and (3)

carry a UL Listing or equivalent. In addition, the RC must conduct the installation according to the guidelines provided by the OEM during the rebuilding process.

**Note:** In qualifying an existing vending machine as ENERGY STAR it is important that measures are taken to ensure the continued safety of the machine after the rebuilding process. Through extensive discussions with industry stakeholders EPA understands that current accepted industry practice to ensure continued safety is to install UL listed components into machines that were UL listed as they left the OEM factory. EPA also understands that requiring UL certification for every remanufactured machine and/or each energy-saving rebuilding kit would be an additional burden on partners and does not ensure that once placed in the field other changes aren't made, further voiding UL. Therefore, EPA feels that requiring the OEM to test the components, or rebuilding kit, within the existing model type and verifying the UL Listing of the components (or equivalent) represents due diligence on the part of the OEM regarding the continued safety of the machine.

#### **Effective Date**

- Rebuilt vending machines may begin to qualify for ENERGY STAR under Tier I immediately (e.g., once the new specification is finalized and released by EPA).
- As with new vending machines, rebuilt machines with a rebuilding date on or after January 1, 2007, must meet the Tier II requirements in order to bear the ENERGY STAR mark.