

February 6, 2017

Ms. Kirsten Hesla
US Environmental Protection Agency
Ariel Rios Building 6202J
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Ms. Hesla:

The Consortium for Energy Efficiency (CEE) respectfully submits the following comments in response to the *Draft 1 Version 3.0 ENERGY STAR® Automatic Commercial Ice Maker (ACIM) specification*, released by the Environmental Protection Agency (EPA) on January 6, 2017.

CEE is the binational organization of energy efficiency program administrators and a staunch supporter of the ENERGY STAR® Program. CEE members are responsible for ratepayer-funded efficiency programs in 45 US states, the District of Columbia, and seven Canadian provinces. In 2014, CEE members directed over \$6.7 billion of the \$8.7 billion in energy efficiency and demand response program expenditures in the two countries. These comments are offered in support of the local activities CEE members carry out to actively leverage the ENERGY STAR brand. CEE consensus comments are offered in the spirit of strengthening ENERGY STAR so it may continue to serve as the national marketing platform for energy efficiency.

CEE highly values the role ENERGY STAR plays in differentiating energy efficient products and services that the CEE membership supports locally throughout the US and Canada. We appreciate the opportunity to provide these comments.

CEE Members Desire Continued Differentiation, but Additional Data is Needed to Justify Incentives at Defined Levels

In 2016, 53 CEE members offered incentives programs for ACIMs, with 34 of those programs referencing ENERGY STAR.¹ In order to justify incentives at the proposed levels, CEE members,

¹ Based on data collected in the [2016 CEE Commercial Kitchens Program Summary](#).

who are program administrators, respectfully request additional product and market data. In order to fully assess the specification and provide substantive feedback on the continued benefits for labeling the proposed equipment types, we request access to the raw energy consumption data set for the products covered (masked, if necessary). In addition, we request the additional data below for each ACIM equipment type listed in the draft specification, if possible, including:

- Market sales and penetration data (or the data EPA is using as a proxy, such as shipment data) by ACIM type, ice harvest range, and for RCU units with or without remote compressors
- Number or percent of models that would meet the proposed performance criteria
- Percent of energy savings and range of kWh savings over the proposed 2018 federal minimum standards²
- Annual water savings
- Effective useful life assumptions, particularly if varied
- Cost-effectiveness analysis and incremental cost to customer of the base unit relative to the ENERGY STAR unit

Lack of Available Products Across a Variety of Ice Harvest Ranges is Problematic

CEE notes that based on the gaps in the data plots provided, there are multiple equipment types where ENERGY STAR models are not available across a variety of ice harvest ranges, including batch self-contained unit (SCU), batch ice making head (IMH), and batch and continuous remote condensing unit (RCU). A lack of available ENERGY STAR products can damage the ENERGY STAR brand, the reputation of utilities to their customers, and harm the future effectiveness of programs in this and other product categories.

Without a better understanding of the potential number of models and manufacturers that could meet the proposed levels under various ice harvest rates and the sales and market availability, CEE is unable to comment on how the revised performance criteria could meet market and program needs for the ACIM product category. CEE recognizes that manufacturers are currently redesigning and developing new products to meet rising federal minimum standards scheduled to take effect in 2018, and that new products will continue to enter the market up to and beyond the effective date of the proposed ENERGY STAR specification. Additional product and market data will help support program administrators' assessment of the draft proposal and the current market potential. At this time, those responsible for designing and developing ACIMs are best equipped to confirm whether the performance criteria are ultimately achievable across multiple ice harvest rates into the future. For this reason, we look forward to reviewing industry stakeholder comments on the feasibility of EPA proposed performance requirements.

² US Department of Energy, *Energy Conservation Standards for Automatic Commercial Ice Makers*, published January 28, 2015: <https://www.regulations.gov/document?D=EERE-2010-BT-STD-0037-0137>. Compliance with the amended standards is required on January 28, 2018.

Additional Information Needed on EPA Assessment of Refrigerants

CEE members report seeing more commercial refrigeration products using new refrigerants given recent updates to the EPA Significant New Alternatives Policy (SNAP) of acceptable refrigerants, such as R-290 (propane).³ Program administrators are supportive of the inclusion of the refrigerant reporting requirement for ACIMs, and request information to assess the proposed draft and its potential impact to the market, including: a) the magnitude of energy savings attributable to natural refrigerants for this product category, b) identification of models represented in the EPA data set that currently use natural refrigerants, and c) demonstration of required treatment to ensure safety.

CEE Supports Use of Open Standards, and Recommends Multiple Pathways to Connect and Open Standards Translation within the Physical Premise of the Building

CEE supports EPA inclusion of optional connected criteria for ACIMs and believes that identifying products with connected functionality is important to enable potential load management and customer benefits. CEE applauds the use of open standards in the ENERGY STAR connected criteria; open standards and data sharing help preserve customer and grid value over time. While CEE cannot provide communication pathway recommendations specific to ACIMs that would inform prescriptive requirements at this time, CEE members believe there are a number of reasons why ACIMs should enable more than one means to connect, and that a local connection should be one of those options. Therefore, CEE recommends including a connected ACIM criterion requiring multiple pathways to connect, at least one of which is direct and on-premise, to help ensure a majority of consumers realize benefits.

Diverse conditions encountered by CEE members (regulatory, terrain, customer density, metering infrastructure) often require a variety of communication technologies to reach devices for demand response, energy efficiency, and other amenities enabled by connectivity. Specification of particularly acceptable pathways must recognize this diversity and provide consumers with sufficient options to make use of the added capabilities. A modular approach that is based on open standards is one option to address this diversity and provide consumers, utilities, manufacturers, and third parties with flexibility. For example, a modular communication port such as CTA-2045 or some other means to ensure local access through open standards provides flexibility to enable connectivity within the physical premises of the building and

³ US Environmental Protection Agency, *Acceptable Substitutes in Commercial Ice Machines*, accessed February 3, 2017: <https://www.epa.gov/snap/acceptable-substitutes-commercial-ice-machines>.

enhances the opportunity for the type of demand response programs, offered by a greater number of organizations, that could leverage ACIMs to meet EPA proposed requirements.

Another consideration relates to data sharing. Many CEE members need equipment to communicate data via open standards in order to gain access to performance data across equipment types and to demonstrate value and justify promotion or partnership for the following values: load forecasting, integrating distributed energy resources such as renewable, using products to complement load management objectives, managing transmission and distribution constraints, and offsetting system peaks.

As DSM administrators deploy programs, there will be a need to collect and process more and more data from numerous manufacturers over time. Automated data sharing across product types and manufactures is desirable for programs to achieve greater scale and lower evaluation costs. Open, local access would help ensure that the ACIMs do not become inaccessible if a given manufacturer or service provider exits, or chooses to charge consumers a fee for maintaining a cloud connection that could diminish program participation.

CEE Encourages Data Collection on DR Functionality to Inform Programs and Future ENERGY STAR Efforts

CEE members believe connected ACIMs enable new value for grid benefit and that the data collected through ENERGY STAR certified products regarding ACIM functionality could benefit programs, if it contains and addresses the values previously described. CEE is not currently in a position to recommend a prescriptive list of DR functionality requirements in addition to the list of information EPA plans to collect, but the data collection effort at this time would help inform a more detailed future specification.

CEE Continues to Support Water Cooled Units for Automatic Commercial Ice Machines

CEE understands EPA concerns about the additional water use of once-through or pass through cooling systems, especially given the lack of mechanisms for ENERGY STAR to verify that products are limited to closed-loop cooling in operation. The scope of the *CEE Specification for Commercial Ice Machines* currently includes water cooled automatic commercial ice machines, but clearly notes that only closed loop systems or systems with a remote evaporative condenser, not units installed on once-through or pass through cooling systems, meet CEE requirements.

CEE values specifications that are technology neutral. During the 2011 CEE revision of its ACIM specification, the performance data indicated that water-cooled machines were inherently more energy efficient than air-cooled machines and market research continued to show that these products are not substitutes, providing the rationale for CEE to include both air- and water-cooled units. Expanding the scope of the ENERGY STAR specification to include water cooled systems may be something for EPA to consider in future revisions.

CEE would once again like to thank the EPA for the opportunity to comment on the *Draft 1 Version 3.0 ENERGY STAR® Automatic Commercial Ice Maker (ACIM) specification*. Please contact CEE Program Manager Laura Thomas at 617-337-9272 with any questions about these comments.

Sincerely,

A handwritten signature in blue ink that reads "Ed Wisniewski". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Ed Wisniewski
Executive Director