e - Radio

March 21, 2012

Via Email

Ms. Amanda Stevens
Office of Air and Radiation
United States Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue NW
Washington, D.C. 20460

Re: **Comments of e-Radio USA on the U.S. Environmental Protection Agency (EPA) Residential Refrigerators and Freezers Draft Test Method to Validate Demand Response Rev. Feb-2012**

Dear Ms. Stevens,

e-Radio USA Inc. (ERU) respectfully submits the following comments representing our view on the subject document. ERU currently participates in and supports the Consumer Electronics Association (CEA) subcommittee R7.8 working group WG1 efforts toward developing the "Modular Communication Interface for Energy Management" (MCI). The resulting specification will become CEA 2045 and will be submitted to the NIST Smart Grid Interoperability Panel (SGIP) to review for inclusion in the NIST SGIP Catalog of Standards.

In our view, the CEA 2045 solution, utilizing existing FM radio broadcasting stations and networks employing a communications system based on the FM RDS radio, is an excellent candidate for addressing the following stated objectives of ENERGY STAR "connected" Program Requirements:

1. Near term value, providing a jump-start for the industry
2. Consumer-centric options
3. Ease of use (plug and play) with little or no installation steps needed

In fulfillment of the stated objectives above, ERU's FM-based CEA 2045 solution has the following characteristics:

a. Single standard, nationwide and,
b. Comprehensive nationwide transmitter network currently in place capable of being fully activated within months and,
c. Unencumbered, ubiquitous terrestrial coverage and,
d. Does not require 'smart grid' infrastructure and,
e. Optional connectivity to HEM and,
f. Real-time Demand Response (DR) with little latency (a few seconds)and,
g. Unlimited number of simultaneous listeners (no network congestion)and,
h. End-user privacy is preserved and,
i. Ease of installation procedure and use: just plug it in; self-install and,
j. Interoperable and plug and play - desired by the consumer and,
k. Flexibility of "connected" solution – desired by appliance Original Equipment Manufacturers (OEMs) and,
l. Lowest cost overall for the consumer, appliance OEM, the utility and ISO and,
m. Low 'phantom' power consumption and,
n. Simplicity of the entire system.

e-Radio has specific comments to **Draft Test Method to Validate Demand Response, Rev. Feb-2012** as follows:

Section 3 B: Definition:

Communication Module (Appliance): A built-in or external device that enables appliance communication with a utility or equivalent communication device.

We submit that this statement be modified to allow optional participation. Bi-directionality requires a built-in transmitter, which can use significant amount of standby or 'phantom' power. Moreover, it will also require at least one other transceiver unit, which also consumes significant standby or 'phantom' power. Therefore, we recommend the use of bi-directional communication or HEM as optional and not mandatory for privacy and 'phantom' power reasons.

Conclusions

e-Radio USA respectfully requests that these comments be considered carefully by the EPA in formulating the Residential Refrigerators and Freezers Draft Test Method to Validate Demand Response. We believe the CEA 2045 effort should be harmonized as much as possible with the ENERGY STAR program requirements and thereby facilitate broader electrical-power system benefits to achieve efficient cost-effective implementation of Smart Grid technology.

Please do not hesitate to contact the undersigned should you have any questions.

Respectfully submitted,

Jackson K. Wang,
President, e-Radio USA Inc.