From: John.Sartain@emerson.com
To: ClimateControls@energystar.gov;
Subject: Climate Controls Draft 2 feedback
Date: Friday, July 30, 2010 6:36:00 PM

ClimateControls@energystar,

In Draft 2 specification lines 401 through 416 below:

1. The product shall be capable of maintaining the correct date & time without user input, including automatic adjustment for US Daylight Savings Time (DST) by default. The product shall permit automatic daylight savings time adjustment to be cancelled. Correct date & time shall be maintained thru power outages of 7days or less duration. Minimum timekeeping accuracy shall be ±0.5s per 24-hour period. When integrated into an EMS/ESI that includes date & time synchronization with external sources; EMS/ESI date & time synchronization shall take precedence.

Note: Correct execution of program schedules is dependent upon accurate timekeeping by the Climate Control. In recognition of the expected expense of a reliable capability to set the time automatically, and that time & date should be set during installation; this Draft 2 specification revises the previous draft by removing the requirement that the Climate Control automatically set the time and date. EPA envisions that the installer will set the time & date and the Climate Control will maintain it to the accuracy of Quartz timekeeping, including through week-long power outages. The intent of requiring US Daylight Savings Time (DST) support by default, but allowing this function to be overidden, is to provide out-of-the-box timekeeping accuracy for the greatest number of users, while maintaining configurability for use in regions that do not observe DST.

1. If a Climate Control is integrated into a EMS/ESI/AMI system that automatically sets time and date upon installation for greater usability and repopulates the time and date after a power outage is it necessary to maintain time during the power outage? If so what is the purpose of maintaining time during the power outage?

2. If the climate control is integrated into a utility EMS/ESI/AMI system where the utility initiates pricing events and the EMS/ESI/AMI date and time synchronization control of the clock function is synchronized to insure the user price responses are implemented by the Climate Control at the correct time is the accuracy requirement applicable?

3. Is the 12 month battery life requirement reduced if batteries are tasked to maintain the clock for 7 days or more during a power outage?

4. Considering that batteries if not disposed of properly contribute to the waste stream. If

a climate control is able to maintain date and time during a power outage for a reasonable length of time (days) without batteries can some latitude be given based on a more environmentally friendly design given the number of battery changes over a Climate Control's life span?

In Draft 2 specification lines 532 through 542 below:

1. The product shall include humidity display and be capable of maintaining desired humidity levels when coupled with suitable HVAC equipment. Humidity sensing must be accurate to within ±5%. Line-Voltage Climate Controls are exempt from this requirement.

Note: The accuracy requirement for humidity measurement and display has been relaxed to ±5% in response to stakeholder concerns regarding incremental cost of the previous proposed requirement of 3% with little benefits to the consumer

In order to avoid increased Climate Control complexity and subsequent decreases in usability, EPA has elected not to suggest, define or mandate humidity control parameters or setpoints. However, stakeholders are encouraged to consider HVAC control implementations that will use both temperature and humidity data to reduce energy consumption. In particular, there appears to be an opportunity for reduced consumption from homes in vacation mode during the cooling season.

5. Consider that humidity measurement increases cost and complexity and potentially decreases usability. If humidity measurement and display have no defined or mandated control parameters. Can humidity measurement and display be added to an existing installed climate control at the time a humidity control device is added and/or control parameters are mandated?

Regards,

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