

Tendril Inc. Comments on Draft 1 Version 1.0 Energy Star Residential Climate Controls Specification

4/29/10

Line 459: The phrase “Back up Heat” is too long for some displays, and is a bit ambiguous. Recommend “Aux Heat”, with which users are familiar, and implies extra heat. “Back up” heat infers the primary method has failed.

Line 549: It is desirable to use the LEDs to relay other information as well. The color scheme specified is acceptable, but it is desired to reserve blink sequences to indicate other unit status (such as network joining, commissioning, etc.)

Line 582: Remote sensing is an expensive and complex feature, and should not be required. It can be a differentiator in the industry for high end devices. Furthermore, if remote sensing is used, the algorithm for applying that information is complex and involves many variables. It could easily result in more energy usage if improperly specified.

Line 588: Humidity sensing adds cost and complexity, and is only useful in certain applications. Again, it should be considered a high end differentiator, not a requirement. Furthermore, the 3% accuracy specification is too ambitious. We recommend 10% resolution for those units utilizing this feature. Also, for those units utilizing humidity information, the algorithm should be specified so true energy savings are realized.

Line 604: Power draw should not be restricted to this level. Some brief operating modes (such as backlight on, or radio transmission active) may briefly consume a higher amount of power. If the device average power is low, the unit is not causing an overall increase in energy consumption. Radio units with amplifiers will have a very difficult time meeting this requirement. Recommend < 2W peak and < 1.2W average consumption over 24 hour period.

The power spec as defined is limited to climate control only, but distinguishing climate control from communication capability becomes impractical as integrated solutions mature.

Line 667: Should not require humidity sensing, see comments for line 588 above.

Cover Letter: Capability for 3rd party developers to obtain open access: While we did not see specific reference to this in the draft itself, special attention must be paid to security concerns. The certificate based key exchange process and high levels of encryption used in ZigBee Smart Energy protocol is recommended for this interface. Unauthorized access to the communication network for the PCT would be highly disruptive to the industry.

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