Qualifying Products

Please consider…

1) Would the CT-80 meet these specs if it ran on batteries for 12 months?
2) What would we have to do to the 3M-50 to make it qualify?
3) Are there any obstacles here we cannot overcome?

Any Residential Climate Control that complies with either the "Climate Control" or "Communicating Climate Control" definition in Section 1.A is eligible for ENERGY STAR qualification. For purposes of this Version 1.0 specification, Residential Climate Control refers to products intended for installation in homes and dwellings. A Residential Climate Control includes fan modes *[Tim Simon Says…. Why do we not define FAN MODES as : ON and AUTO with the option for some CIRCULATE MODE… **FAN can >>NOT<< have an OFF position**]* and a default program schedule suitable for typical residential usage. This specification covers devices that directly switch low voltage or line-voltage loads.

Note: Climate Controls intended for commercial installation in the workplace are not eligible for ENERGY STAR. These devices differ from the Residential Climate Control in fan operation and HVAC control algorithms, and include a default program schedule with occupied/away periods suitable for typical commercial usage.

ENERGY STAR qualified Residential Climate Controls must meet the following requirements:

A. The product must provide a default, pre-programmed 5-2 (weekday – weekend) program schedule with a minimum of four possible schedule periods (i.e., morning, day, evening, and

night). Default day and night periods must be at least 8 hours in duration.

B. The product must provide one or more user selectable, pre-programmed 5-1-1 (weekday – Saturday – Sunday) and *[Tim Simon Says.. is >>AND<< the right word or should it say >>And/Or<<< ?*] 7-day program schedules, each with a minimum of four possible schedule periods (i.e., morning, day, evening, and night). Default day and night periods must be at least 8 hours in duration.

C. The product packaging and installation instructions must include the following statement: **"Residential Climate Control – This product is designed only for use in homes and other dwellings." [***Tim Simon Says… might include Not for Commercial use]*The product packaging and installation instructions must clearly indicate the types of HVAC systems it supports. For Low-voltage Climate Controls, this information shall include the number of controlled heating and cooling stages*. [Tim Simon Says.. must be at least 2 HEAT and 2 COOL and work with Multistage HEAT pumps and must have terminals C,B,O,W,W2,Y,Y2, RH, RC, G, A… anything less limits compatibility]*

E. The product must either be (1) a Communicating Climate Control, as defined in Section 1.A above, or be (2) field upgradeable to a Communicating Climate Control by installation of a communication module.

Requirements 1 thru 6 are core usability requirements that apply to **all** qualified product:

1. Climate Controls capable of controlling Heat Pumps shall include a standardized *[Tim Simon Says… not certain what standardized means… I think should be LCD segment, or LED]* visual indicator labeled "back up heat" that appears whenever auxiliary heat is active.

2. The product shall store all programmed settings for the equipment it is designed to control in non volatile memory in case of an external power outage or battery failure.

3. The product shall be capable of setting and maintaining the correct date & time without user input. *[Tim Simon Says…This is a money issue… My opinion… on setup USER inputs Time and Date… thermostat must be able to keep time of day for with battery backup or get time of day from a network… Remember there will be some instances where no radio signal will be*

available. Battery backup does not last forever, but its life is predictable and can be quite long. If the thermostat is connected to a network then the network will provide the time]

471 When integrated into an EMS that includes time synchronization with external sources; EMS/ESI
472 time synchronization shall take precedence.

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4. The product shall offer the user a choice of operation in Fahrenheit or Celsius based on user

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preference. Temperature shall be displayed to a resolution of at least 1 degree Celsius *[Tim Simon Says… Celsius >>MUST<< have 0.5 degrees or it is useless]* or 1

479 degree Fahrenheit.

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13. The product shall have access to outdoor temperature data. *[Tim Simon says… this access does not need to come from a proprietary sensor, but can be available from the internet or other network. The phrase SHALL HAVE ACCESS]* For Dual Fuel Heat Pump

583 installations, the Residential Climate Control shall use the outdoor data to provide automatic
584 cutover to/from the backup heat source based on installer configurable cutover temperatures.

14. The product shall include humidity display and be capable of maintaining desired humidity levels
589 when coupled with suitable HVAC equipment. *[Tim Simon says… there is a vagueness here that can be corrected…. You say desired humidity levels… does that mean both Humidifying and DE-Humidifying, also Humidly does not need to be as accurate as temperature I would suggest 5%, I would not even mention long term drift, we are making this more expensive, harder to test and harder to certify….]* Humidity sensing must be accurate to within ±3%

590 with a long term drift of <0.5%. Line-Voltage Climate Controls are exempt from this requirement.