



ENERGY STAR® Residential Climate Controls

Remote Interfaces Discussion Document
Webinar

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Overview



- Removal of requirements
- Qualification of units with remote interfaces
 - Definition and drivers
 - Thoughts on requirements
 - Thoughts on test method impact
- External connectivity
- Round robin status and future process

Removal of requirements



- Humidity sensing requirement
 - Stakeholders concerned about cost of accurate, long life sensors
 - Will not save energy in all cases; consumers can determine if a unit has this feature
 - ENERGY STAR site will steer vacation home owners toward humidity control
- Rate tier display requirement
 - No consensus that this was the appropriate demand response requirement
 - Difficult to test
 - Usability test task would also be eliminated

Remote Interfaces



- What are they?
 - PC, web browser, smart phone, tablet etc.
 - May have limited or complete functionality
 - Require additional hardware and software
- Drivers
 - Specifically excluded from earlier drafts
 - In the past year, many units with such interfaces have come out
 - Likely path to less expensive, highly usable units

What kinds of products could now qualify?



Remote Interface (RI)



Remote Interface (Includes Dedicated Application/Mobile Web Interface)

AND/OR



PC Interface (Includes Web Interfaces/Dedicated PC Software)

+

Climate Control

Wall-Mounted/
Portable Thermostat



Usability

1. The RI and Climate Control are tested in an EPA-recognized usability laboratory according to the provisions in the discussion document.
2. If the product passes the streamlined prescriptive or performance requirements, the RI will be approved for use with the ENERGY STAR qualified Climate Control.

Qualification via RI



- The RCC and RI qualify as a single product
- Certain functions may pass the usability test (or meet the prescriptive requirements) based on the operation of the remote interface
 - Establish a schedule
 - Setting date and time
 - Related to minimum functionality of wall unit
- More than one remote interface may exist, and be qualified, per product

Qualification via RI



- Some functionality when disconnected is required
 - Expect occasional short disconnects from RI
 - Require basic thermostat functions in absence of connection
 - Adjust temperature
 - Turn fan, cooling and heating on and off
 - Run the last schedule programmed?
 - Long term hold?

Qualification via RI



- Any required hardware and software indicated on packaging/literature
- If qualified only with an RI, RI must be listed on packaging/literature
- Multipurpose interfaces (e.g. an alarm panel which also provides thermostat programming) would be eligible

Testing Units with RIs

- Units would still need to be highly usable for basic tasks
- More complex tasks could be performed via RI
- This requires a way of “passing” single tasks, or of testing the remote interface and the unit in combination

RI Discussion Questions



- Implications of including, and of allowing some functions to be qualified entirely in RI
- Minimum and disconnected functionality?
 - Setting up a schedule
 - Running a schedule (w/long term hold)
- “Single user action” – after RI launches?
- Third party RIs

External connectivity



- More products with external connectivity coming to market
- Is it still appropriate to make this optional?
- Units qualified via RIs will obviously need to ship with external connectivity enabled

Round Robin RFP Status



- Round Robin RFP issued in August
- Multiple responses received
- DOE declines lead role in Usability Test Method development
- No funds available for planned RFP
- Necessitates a change in strategy and timing

Development Plan



- Release Draft 3 Requirements in December
- Also release V1.0 of the Usability Test Method
 - General outline of test method has not changed
 - Establishes required expertise in labs performing test
 - Expectation of further development as stakeholder process continues (tasks, user group, etc.)
- Labs invited to participate in Round Robin
- Labs which do will be first recognized by EPA to perform test for qualification
- Experience with V1.0 test also expected to aid in demonstrating competence for accreditation

Development plan, cont.



- Plans for round robin established Nov and Dec
 - Size and demographics of user group
 - Number of units to be tested
 - Data required to be reported
- Testing begins Dec or Jan
- Testing complete Jan? Feb?
- Draft Final and Usability Test V2.0 released March
- Specification finalized March/April 2012
 - Details of test method also finalized—V2.1 or 3.0 if needed
 - Laboratories already accredited to Usability Test V1.0 would not need immediate reaccreditation
 - Program can therefore be effective immediately

Contact Information



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Thank you