



ENERGY STAR Telephony Test Method Webinar


December 18, 2012

Bryan Berringer, U.S. Department of Energy
Paul Karaffa, U.S. Environmental Protection Agency



ENERGY STAR Program

  Learn more at energystar.gov

Webinar Details



- Webinar slides and related materials will be available on the Telephony Web page:
 - www.energystar.gov/revisedspecs
 - Follow link to "Version 3.0 is in Development" under "Telephony"
- Audio provided via teleconference:
 - Call in:** +1 (877) 423-6338 (U.S.)
+1 (571) 281-2578 (International)
 - Code:** 436598#
 - Phone lines will remain open during discussion
 - Please mute line unless speaking
 - Press *6 to mute or un-mute your line

  2

Webinar Goals



- Review changes from Draft 1 to Draft 2 Test Method and receive feedback from stakeholders
- Provide update on Specification development



3

Agenda



- 1 Draft 2 Test Method Update
- 2 Specification Update
- 3 Next Steps



4

Review of Draft 2 Test Method



- Draft 2 Test Method published on December 7, 2012
 - Comments are due by December 28, 2012
- Draft 2 contains revisions to five major areas
 - Scope
 - Mode Definitions
 - Power over Ethernet (PoE) voltage requirements
 - Testing with Additional Handsets (AH)
 - Partial On Mode Test for Cordless Telephones
- Changes based on
 - Stakeholder feedback
 - Additional DOE research



5

Revision #1 – Scope



- Draft 1 Proposal: Telephones with Video Calling capability were not addressed
- Comment Received: Stakeholder requested that video-capable Telephones be explicitly addressed in the scope



6

Revision #1 – Scope



- Draft 2 Proposal: Telephones with Video Calling capability are excluded from the Version 3.0 scope
 - Definition for “Video Calling” included for clarity
- Rationale:
 - The test method, as currently proposed, is not sufficient to test video-capable Telephones
 - DOE and EPA may consider these products for inclusion in the next version



7

Revision #2 – Mode Definitions



- Draft 1 Proposal: Proposed the following Operational Modes:
 - Partial On (Sleep) Mode – “on the hook,” ready for a call
 - Idle Mode – “off the hook,” with a dial tone
 - Operation Mode – “off the hook,” connected to a call
 - Charging Mode – “on the hook,” charging a battery
 - Off Mode – plugged in, performing no functions
- Comment Received: Stakeholders requested changes to the Operational Mode terms to align with current industry terms



8

Revision #2 – Mode Definitions



- Draft 2 Proposal: DOE is proposing to update the Operational Mode terms

Draft 1 Term	Draft 2 Term	Definition
Partial On (Sleep) Mode	Partial On (Sleep) Mode	“on the hook,” ready for a call
Idle Mode	Call Origination Mode	“off the hook,” with dial tone
Operation Mode	Active Mode	“off the hook” connected to a call
Charging Mode	<i>(Removed)</i>	“on the hook,” charging a battery
Off Mode	Off Mode	plugged in, performing no functions



Revision #2 – Mode Definitions



- Rationale:
 - Draft 1 terms conflicted with current industry terms
 - Charging is not a mode but a function which can occur during any of the other defined modes



Revision #3 – PoE Voltage Requirements



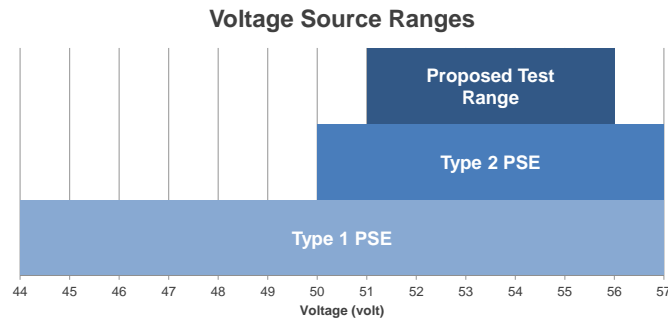
- Draft 1 Proposal: Connect PoE units to a voltage source of 48 ± 2 volts
- Comment Received: Specifying an input voltage of 48 ± 2 volts prohibits the use of Type 2 Power Sourcing Equipment (PSE)

Revision #3 – PoE Voltage Requirements



- Draft 2 Proposal: Connect PoE units to a voltage source of 53 ± 2 volts
- Rationale: Both Type 1 and Type 2 PSEs can source voltage in the range provided
 - Still provides stringent power requirements

Revision #3 – PoE Voltage Requirements



Can all PoE units operate within the provided voltage range?



13

Revision #4 – Testing with Additional Handsets (AHs)



- Draft 1 Proposal: Test units both with and without all AHs and accessories set up
- Comment Received: Stakeholders requested clarification regarding the test set up for AHs:
 - What mode should AHs be in during base unit Active Mode testing?
 - Should the power consumption of AHs be measured in addition to the base unit's?



14

Revision #4 – Testing with Additional Handsets



- Draft 2 proposal: When testing a base unit with AHs:
 - All AHs shall remain in Partial On Mode for the duration of testing
 - Measure only the power consumption of the base unit
- Rationale:
 - Most accurately represents normal usage
 - Power consumption of AHs measured when qualifying an AH for ENERGY STAR



15

Revision #5 – Partial On Mode Testing



- Draft 1 proposal: Measure average power consumption over a five minute test period
- Comment Received: The five minute measurement period is not representative of normal Telephone operation
 - Units with cordless handsets have charging cycles much longer than five minutes



16

Revision #5 – Partial On Mode Testing



- Draft 2 proposal: For units with cordless handsets:
 - Stabilize unit in the charging cradle for at least two hours prior to testing
 - Measure average power consumption over two hour test period

- Rationale:
 - Stabilization period ensures battery is fully charged prior to testing
 - 2 hour test period measures larger portion of charging cycle – more representative of normal operation



17

Summary of Proposed Changes



Topic	Draft 1 Test Method	Draft 2 Test Method
Scope	Video-capable Telephones not addressed	Video-capable Telephones are excluded from the Version 3.0 scope
Definitions	<ul style="list-style-type: none"> • Partial On (Sleep) Mode • Idle Mode • Operation Mode • Charging Mode • Off Mode 	<ul style="list-style-type: none"> • Partial On (Sleep) Mode • Call Origination • Active Mode • <i>(Removed)</i> • Off Mode
PoE Voltage Requirements	Connect units to a voltage source of 48 ± 2 volts	Connect units to a voltage source of 53 ± 2 volts



18

Summary of Proposed Changes



Topic	Draft 1 Test Method	Draft 2 Test Method
Testing with Additional Handsets	Test units both with and without AHs set up	When testing with AH: - All AHs remain in Partial On Mode - Measure only the base unit's power consumption
Partial On Mode Testing	For all units - Stabilize unit for 5 minutes - Measure average power over 5 minute period	For units with cordless handsets - Stabilize unit for two hours - Measure average power over two hour period For all other units - Stabilize unit for 10 minutes - Measure average power over 10 minute period

Agenda



- 1 Draft 2 Test Method Update
- 2 Specification Update
- 3 Next Steps

Data Assembly Start



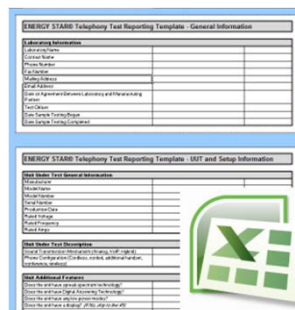
- With the release of this test method, EPA would like to start the data assembly process
- Data assembly will run:
 - December 2012–February 28, 2013**
- All data shared by stakeholders will be treated in confidence.
- Data will be used in the aggregate to develop Draft 1 specification levels in the spring



Data Collection Form



- Test Reporting Template Accompanied Test Method
 - Also available through energystar.gov/RevisedSpecs
 - Use template to record and provide data to EPA
 - Includes space for both test results and product characteristics
 - Data collection to run until: **February 28, 2013**



Send data to telephony@energystar.gov



Version 3.0 Data Needs



- Need data for VoIP/Hybrid, Corded, Conference
- Will use Qualified Product Data for Cordless

		Sound-only Transmission			Sound and Video Transmission	
		Analog	VoIP/Hybrid	Cellular		
Configuration	Additional Handset	Currently Covered under V2.1	Under Consideration: - Power over Ethernet(PoE) and ac-powered - Ethernet, WiFi, access point	Not Under Consideration (Proposed for inclusion under ENERGY STAR Battery Charging Systems Program)	Not Under Consideration	
	Cordless					
	Corded	w/ External Power Supply		Under Consideration		Not Under Consideration (No products in this space)
		w/o External Power Supply		Not Under Consideration		
	Conference	Under Consideration				
Wireless	Not Under Consideration (No products in this space)		Not Under Consideration			



23

Thank You in Advance




Thank you in advance!

EPA is looking forward to your contributions.




24

Agenda




- 1 Draft 2 Test Method Update
- 2 Specification Update
- 3 Next Steps




25

Framework: Test Method Development Timeline



Draft 1 Version 3.0 Test Method to stakeholders	June 2012
Draft 1 Version 3.0 Test Method comments due	June 2012
Draft 2 Version 3.0 Test Method to stakeholders	December 2012
Draft 2 Version 3.0 Test Method comments due	December 2012
Final Draft Version 3.0 Test Method to stakeholders	Early 2013
Final Draft Version 3.0 Test Method comments due	Early 2013
Final Version 3.0 Test Method	Mid 2013



26

Framework: Data Assembly and Specification Development Timeline



Draft 2 Version 3.0 Test Method to stakeholders	December 2012
Data Assembly Period Starts	December 7, 2012
Data Assembly Period Ends	February 28, 2013
Draft 1 Version 3.0 Specification Published	Spring 2013

EPA thanks all stakeholders for their contributions to the data assembly process!



27

Contact Information



Please send any additional comments to telephony@energystar.gov or contact:

Bryan Berringer
DOE ENERGY STAR Program
Bryan.Berringer@ee.doe.gov

Kurt Klinke
Navigant Consulting, Inc.
Kurt.Klinke@navigant.com

Paul Karaffa
EPA ENERGY STAR Program
Karaffa.Paul@epa.gov

Rachel Unger
ICF International
Rachel.Unger@icfi.com



www.energystar.gov/productdevelopment

28