I. DEFINITIONS/SCOPE

Comment #	Comment Summary	Response
1	Stakeholders recommended including a definition for the term "wireless," as wireless may be confused with "cordless." Stakeholders also recommended consolidating the terms Wireless VoIP Telephones and Wireless IP telephones to Wireless VoIP Telephones for clarity.	DOE agrees with both comments and has included the following definition for "Wireless Telephone" in the Draft 2 Test Method for Telephony, Rev. Aug-2012 (Draft 2 Test Method), as well as ensured the term Wireless VoIP Telephones is used consistently throughout the Draft 2 Test Method. "3.A)1)b.v. <u>Wireless Telephone:</u> A Telephone consisting of a handset, charger, and battery that connects to a network via an IEEE 802.11 (WiFi) connection."
2	Stakeholders recommended the following update to the definition of Hybrid Telephones as the definition proposed in the Draft 1 Test Method was incorrect: "3.A)1)a.iii. <u>Hybrid Telephone:</u> A Telephone or component of a Telephone system that has the ability to ultimately convert sound into both analog waveforms for transmission through an RJ11 connection and Internet Protocol data packets for transmission through an Ethernet connection."	DOE agrees that the definition for Hybrid Telephone needs to be updated and has included the definition proposed by stakeholders in the Draft 2 Test Method.

Summary and Response to Stakeholder Comments from the
ENERGY STAR Program Test Method for Determining Telephony Energy Use Version 3.0 Draft 1

Comment #	Comment Summary	Response
3	Stakeholders recommended updating the Operating Mode terms to the following to coincide with current industry-used terms: Partial On (Sleep) Mode -> Idle Mode Idle Mode -> Dial Tone Mode Operation Mode -> Communication Mode	In an effort to harmonize with the upcoming IEC 62542—Standardization of environmental aspects - Glossary of terms, EPA and DOE propose to retain Partial On (Sleep) Mode as specified in the Draft 1 Test Method. Idle Mode has traditionally been used by industry to describe an "on-hook" state. To further avoid confusion, EPA and DOE have decided to rename Idle (Off-hook) Mode used in the Draft 1 Test Method to Call Origination Mode in the Draft 2 Test Method. Additionally, stakeholders commented that using the term Operation Mode as one of the group of terms named Operational Modes was confusing. Therefore, EPA and DOE are proposing to change the term Operation Mode to Active Mode, to minimize confusion.
4	Stakeholders asked whether Additional Handsets qualify as accessories under the definition of UUT, which includes "the base product and any accessories packaged with it."	The term "accessories" in the Draft 1 Test Method definition of UUT was not intended to include Additional Handsets sold and packaged with the base station. Accessories were intended to mean the other items shipped with the base station, excluding the Additional Handsets and their charging bases. As such, DOE and EPA have updated the definition of UUT in the Draft 2 Test Method to the following: "3.E)6) Unit Under Test (UUT): The specific sample of a representative model undergoing measurement which can include the base product (the Telephone) and any Additional Handsets and accessories packaged with it, or an Additional Handset, with any accessories packaged with it, depending on the product type being tested for qualification."

Summary and Response to Stakeholder Comments from the
ENERGY STAR Program Test Method for Determining Telephony Energy Use Version 3.0 Draft 1

Comment #	Comment Summary	Response
5	Stakeholders recommended including video-capable telephony devices in the scope of the Telephony program and proposed the following updates to the Definitions section: "3.A)1) Telephone: A commercially available electronic product whose primary purpose is to transmit and receive sound and/or full-motion video over a distance using a voice or data network. 3.A)1)a.ii. Voice over Internet Protocol (VoIP) Telephone: A Telephone or component of a Telephone system that ultimately converts sound and/or full-motion video into Internet Protocol data packets for transmission through an Ethernet connection. 3.A)1)a.iii. Hybrid Telephone: A Telephone or component of a Telephone system that ultimately incorporates the functions of both the analog telephone and VoIP telephone above. 3.A)1)b.v. Video Telephone: Telephone device with screen capable of making full-motion video and voice calls. Devices with a screen size > 10" diagonal may be considered to be Video Conferencing Systems rather than telephony devices, and hence are specifically not covered by this program."	DOE and EPA have decided not to include video-capable telephony devices in the scope of the Version 3.0 Telephony Program but may consider them for inclusion in later revisions of the Program. As such, DOE and EPA have included language explicitly stating that Telephones with full-motion video capabilities are excluded from the Version 3.0 Telephony Program. DOE has included the following definition in the "Functionalities" subset of definitions in the Draft 2 Test Method. DOE and EPA have not included the proposed definition for Video Telephone in the "Sound Transmission Mechanism" section, as they do not consider video calling to be a new transmission mechanism but an additional functionality provided by a Telephone. "3.C)1) Video Calling: The capability of a Telephone to convert both full-motion video and sound into Internet Protocol data packets for transmission through an Ethernet connection."

Comment #	Comment Summary	Response
6	Stakeholders proposed updating the definitions for both High Resolution Display and Status Display to the following to more accurately represent the types of displays present in products currently being sold: "3.C)4) High Resolution Display: A function by which a device provides a pixel-based visual display with resolution greater than or equal to 480x234 pixels. This definition does not include Status Displays. 3.C)5) Status Display: A function by which a product provides a visual display of less than 480x234 pixel resolution, including a back-lit alphanumeric clock or channel indicator. This definition does not include single indicator lamps."	EPA and DOE agree with the proposed stakeholder suggestion to update the definitions for High Resolution Display and Status Display to more accurately represent the types of displays present in the market today, recognizing that displays smaller than 5" could meet both definitions, while displays greater than 5" could meet neither definition. EPA and DOE have updated the definitions to the following "3.C)4) High Resolution Display: A function by which a device provides a pixel-based visual display with resolution greater than or equal to 480x234 pixels, including an LCD panel. This definition does not include Status Displays. 3.C)5) Status Display: A function by which a product provides a visual display of less than 480x234 pixel resolution, including a back-lit alphanumeric clock or channel indicator. This definition does not include single indicator lamps." EPA and DOE have not set a limit on the dimensions of High Resolution Displays or Status Displays in the definitions but will consider information received from manufacturers in the call for data to determine if any further exclusion is warranted.
7	Stakeholders proposed removing the reference to IEEE 802.3af from the Power over Ethernet (PoE) definition, as IEEE 802.3af has been superseded by subsequent versions and proposed additions to include further detail in the definition. Stakeholders also commented that IEEE 802.3 was undergoing a revision at the time of the publication of the ENERGY STAR Version 3.0 Telephony Draft 1 Test Method.	The revision to IEEE 802.3, IEEE 802.3-2012, was ratified on September 5, 2012. DOE has updated the definition for PoE to reference this newest version of IEEE 802.3. "3.E)5) Power over Ethernet (PoE): A technology which enables transfer of electrical power, along with data, to network end point devices through an Ethernet cable. Currently specified by IEEE 802.3-2012."

Comment #	Comment Summary	Response
8	Stakeholders commented that Power over HDBaseT (PoH) should be included in the Draft 2 Test Method.	DOE is currently unaware of PoH being used by any Telephones covered under the scopeof the Draft 2 Test Method. Because HDBaseT is designed to support higher bandwidths, DOE believes including PoH is not currently needed for non-video capable Telephony products. As such, DOE has not included PoH in the Draft 2 Test Method. However, DOE and EPA are requesting information from stakeholders regarding any Telephones that support PoH.

II.   TEST SETUP

Comment #	Comment Summary	Response
9	Stakeholders recommended removing Gigabit Power over Ethernet (PoE) from the list of PoE methods as it is not a PoE Mode.	DOE agrees with the comment that Gigabit does not refer to a method of transmitting power over an Ethernet cable but to the speed at which data are transferred over a cable. As such, DOE has removed it from the list of PoE Power Modes in section 4.F of the Draft 2 Test Method.
10	Stakeholders recommended excluding "4-pair" (Mode A + B) powering schemes from the scope of the Telephony program because they are not covered under IEEE 802.3.	DOE agrees with the comment and will exclude all designs not covered by IEEE 802.3 from the ENERGY STAR Telephony Draft 2 Test Method.
11	Stakeholders commented that requiring the input voltage to be 48 ± 2 volts for PoE testing removes the possibility of testing with Type 2 Power Sourcing Equipment (PSE), as defined in IEEE 802.3.	DOE has updated the input voltage requirements for PoE testing to be 53 ± 2 volts to allow the use of Type 2 PSEs during testing. DOE also has also requested feedback regarding whether any product models would not be capable of operating in this voltage range.
12	Stakeholders commented that some PSEs must use voltages lower than the specified range during detection and classification of PDs for compliance with IEEE 802.3.	DOE has updated the input power requirements to allow for lower voltages during detection and classification prior to testing. DOE has also specified that the PSE must be compliant with the latest version of IEEE 802.3.

Comment #	Comment Summary	Response
13	Stakeholders recommended defining a "PoE Power Meter" as the following, to allow for meters that act as PSE as well as power meters: "1) Measures PoE Power Draw on ALT-A and ALT-B at both polarities 2) Enables Ethernet link and packet traffic to the PD at all link rates (10/100/1000) from a link partner 3) Sources PD Power on ALT-A and ALT-B at both polarities or allows a PSE (switch) to source power to a PD on ALT-A and ALT-B at both polarities"	DOE agrees that power meters which act as sourcing equipment should be allowed for use during testing and has included the following language to Section 4.F of the Draft 2 Test Method: "4.F)2) Enables Ethernet link and packet traffic flow to UUT from a link partner at all network speeds at which the UUT is capable. 4.F)3) Acts as a PSE or allows another PSE to source power to the UUT."
14	Stakeholders recommended testing using a 1-port Midspan that is connected to an AC power meter for the purpose of testing efficiency, as there are no PoE power meters on the market.	DOE is currently aware of PoE power meters on the market that meet the specifications proposed in the Draft 2 Test Method. Furthermore, DOE is interested in measuring, as closely as possible, only the power consumption of the Telephone itself, as the Midspan would not typically be included with a Telephone product. As such, DOE has made no changes to the power meter requirements for measuring PoE.
15	Stakeholders commented that since the power consumption of the second phone used during testing of Voice over Internet Protocol (VoIP) phones is not measured, the test method should not require the second phone to be a PoE phone.	DOE agrees that the second phone should not be required to be a PoE unit since its power consumption is not measured. DOE's original intention was to ensure the second phone is a VoIP unit. DOE has updated section 6.1 the Draft 2 Test Method to reflect this intention.
16	Stakeholders commented that a cable length of 100 meters between the PSE and the UUT would be more representative of normal operation.	DOE understands that PoE Telephones are normally installed using long cable lengths; however, DOE is interested in measuring, as closely as possible, only the power consumption of the Telephone and not the additional power loss due to long cable runs. As such, DOE has made no changes to the cable length requirements in the Draft 2 Test Method.

III.   TEST CONDUCT

Comment #	Comment Summary	Response
17	Stakeholders commented that the test setup for units with Additional Handsets was unclear and recommended updating the test method to specify, exactly, the number of Additional Handsets that should be in Operation Mode along with the UUT during the UUT's Operation Mode Test.	When testing a base unit with Additional Handsets set up, all Additional Handsets shall remain in Partial On Mode for the duration of testing, as DOE believes that using one handset at a time most accurately reflects normal usage. To clarify, DOE has included the following language in section 5.C of the Draft 2 Test Method: "5.C)2)i) Additional Handsets set up during testing shall remain in Partial On Mode for the duration of testing."
18	Stakeholders supported testing units with the as-shipped brightness settings. Stakeholders also commented that, for cordless handsets with backlit displays, the display should not be required to be lit during testing, as the light stays on only for a brief period.	DOE thanks stakeholders for their support of the proposed test settings. DOE also agrees with the stakeholders' comment regarding backlit cordless handset displays and has not added any specifications for these displays in the Draft 2 Test Method. DOE also believes that the 10 minute stabilization period required for all tests is sufficient time for the backlight to turn off and, as such, has not included any new language in the Draft 2 Test Method.
19	Stakeholders requested clarification regarding whether the power consumption of just the base unit, the base unit and one Additional Handset, or the base unit and all Additional Handsets set up should be measured and reported during testing.	DOE requires only measuring the UUT's power consumption. As such, DOE has updated Section 5.C of the Draft 2 Test Method to state: "5.C)2)ii) When testing a UUT with Additional Handsets, only the power consumption of the base unit should be measured."

IV.   TEST METHOD

Comment #	Comment Summary	Response
20	Stakeholders recommended clarifying Sections 6.2 and 6.3 to the following, as the language in the Draft 1 Test Method allowed for taking as few as one measurement during the test period: "…accumulating true power values at a rate greater than or equal to 1 reading per second."	DOE agrees with the stakeholders' recommendation and has updated Sections 6.2.A)4, 6.3.7, and 7.1.4 in the Draft 2 Test Method with the proposed language.

Comment #	Comment Summary	Response

21	Stakeholders commented that the 5 minute test period could result in non-representative power consumption values for some types of phones due to phone charging cycles and should be reconsidered. Stakeholders also proposed a revised test method for testing units with cordless handsets.	DOE agrees with the stakeholder's comment that the 5 minute Partial On Mode test measurement period is too short for units with cordless handsets. As such, DOE has updated Section 6.2 of the Draft 2 Test Method to include the following, to accommodate for units with cordless handsets. Units without cordless handsets shall not be affected by these changes.
		
		"6.2.A) <u>For units with cordless handsets:</u>
		
		1) Place the handset with a fully charged battery in the charge cradle at least 2 hours prior to the beginning of testing.
		2) Ensure the UUT is in the Partial On Mode.
		3) If the UUT can be placed in Call Origination Mode while the handset is in the cradle:
		   a. Place the UUT in Call Origination Mode for less than 1 minute.
		   b. Confirm the presence of a dial tone.
		   c. Return the UUT to Partial On Mode.
		4) If the UUT cannot be placed in Call Origination Mode while the handset is in the cradle:
		   a. Remove the handset from the cradle.
		   b. Confirm the presence of a dial tone.
		   c. Return the handset to the cradle, within one minute of removing it, and the Telephone to Partial On Mode.
		   d. Wait 10 minutes.
		5) Measure and record the ac input voltage and frequency.
		6) Set the meter to begin accumulating true power values at a rate greater than or equal to 1 reading per second. Accumulate power values for 2 hours and record the average (arithmetic mean) value."

22	Stakeholders agreed that Idle Mode does not represent an appreciable portion of the normal usage profile for telephones and should not be tested.	DOE thanks stakeholders for their support of the proposal not to test Idle Mode (now labeled Call Origination Mode in the Draft 2 Test Method).

Comment #	Comment Summary	Response
23	Stakeholders commented that, since the transmission of sound can affect the power consumption of the UUT, testing using a fixed tone at a specified level during Operation Mode tests.	As mentioned by the stakeholders in their comment, small amounts of ambient noise caused, in some cases, significant changes in the power consumption of the UUT. However, in order to ensure the repeatability of the test method, testing using sound would require specifications regarding not only the sound but also the level of ambient noise in the test room. DOE believes these additional specifications would increase test burden unnecessarily. As such, the Draft 2 Test Method does not include any provisions for testing with sound.

V. MISCELLANEOUS

Comment #	Comment Summary	Response
24	Stakeholders requested clarification on additional energy usage allowances being made for products with different functionalities.	Energy usage allowances for different functionalities will be covered as part of the Specification development process. As such, all comments regarding this topic should be resubmitted upon the publication of the Draft 1 Specification.