DOCKETED	
Docket Number:	17-AAER-12
Project Title:	Low-Power Mode
TN #:	271424
Document Title:	Sarah Widder Comments - NEEA & PCL Comments on VPF-LPM
Description:	N/A
Filer:	System
Organization:	Sarah Widder
Submitter Role:	Other Interested Person
Submission Date:	7/14/2026 10:54:25 AM
Docketed Date:	7/14/2026

Comment Received From: Sarah Widder
Submitted On: 7/14/2026
Docket Number: 17-AAER-12

NEEA & PCL Comments on VPF-LPM

Additional submitted attachment is included below.

July 14, 2026

Submitted via the CEC e-Commenting System (Docket 17-AAER-12)

California Energy Commission Docket Unit, MS-4
Docket No. 17-AAER-12
715 P Street
Sacramento, CA 95814

Re: Docket No. 17-AAER-12 — Comments of the Northwest Energy Efficiency Alliance on the Draft Staff Report on the Voluntary Performance Framework for Low-Power Modes, Version 1.0

Dear Commissioners and Staff:

The Northwest Energy Efficiency Alliance (NEEA), with technical support from Pacific Crest Labs, submits the following comments on the *Draft Staff Report on the Voluntary Performance Framework for Low-Power Modes* (VPF-LPM), Version 1.0, published May 15, 2026.[1]

NEEA is a nonprofit organization funded by 140 regional utilities and dedicated to the market-based development and adoption of energy-efficient products, practices, and services. NEEA collaborates with stakeholders to save energy and money in the Northwest on behalf of more than 14.5 million consumers, businesses, and industries. This unique partnership has helped make the region a national leader in energy efficiency. NEEA has a long history of work on low-power-mode efficiency; among other efforts, it developed the television standby-power measurement method now standardized as ANSI/CTA-2037-D and referenced by the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA)[2] — experience that directly informs several of the comments below.

Pacific Crest Labs LLC (PCL) is a Portland, Oregon research and policy firm serving utility, NGO, and government clients, focused on displays and on the low-power modes of connected products. PCL's work spans research, innovation, and development of both energy efficiency test methods and broad range of policy tools. PCL principal Gregg Hardy has contributed to the

1 Draft Staff Report on the Voluntary Performance Framework for Low-Power Modes, Version 1.0 (California Energy Commission, May 15, 2026), Docket 17-AAER-12, available on the Low-Power Modes Docket Log.

2 ANSI/CTA-2037-D, *Determination of Television Set Power Consumption* (September 2022), including its Interpretation Letter (July 2024) and Second Interpretation Letter (December 2024). DOE incorporated ANSI/CTA-2037-D by reference at 10 CFR 430.3 for the federal television test procedure (10 CFR part 430, subpart B, appendix H; final rule, 88 FR 16082 (March 15, 2023)), and EPA's ENERGY STAR televisions specification (Version 9.1) bases testing on the same appendix H procedure.

development of the international standards on which the Commission's proposed Data Collection Procedure rests, including IEC 62301 and IEC 63474. PCL provided technical support to NEEA in preparing these comments and joins NEEA in submitting them.

NEEA supports the framework. A voluntary, horizontal approach backed by a regulatory backstop is a well-suited instrument for the long tail of plug loads — residential and commercial alike — that fall outside both federal standards and California's Title 20: the products that individual, product-by-product standards have never reached. NEEA commends staff for building it on a horizontal measurement core with a defined taxonomy of primary and supporting functions that can be applied across product categories. The comments below are offered as constructive refinements to strengthen the framework, not as objections to it.

Standards and regulatory context

The staff report already surveys much of this landscape — see Chapter 1, "Regulatory Approaches in Other Jurisdictions" (and its Table 1 of European Union (EU) Ecodesign limits), together with the Data Collection Procedure for Low-Power Modes (DCP-LPM) and its basis in the International Electrotechnical Commission (IEC) standard IEC 62301, in Chapter 4 and Appendix A of the report. We recap it briefly here for convenience, and add the one piece the report predates — the 2026 revisions to IEC 62301 and IEC 63474 — since several of the comments below turn on it. This is neutral context rather than advocacy.

The international measurement methods after the 2026 revisions. Two horizontal IEC methods now divide the low-power-mode measurement space. IEC 62301 is the base method for off, standby, and battery-maintenance modes. IEC 63474 is the companion horizontal method for networked standby of *edge equipment* — devices that connect to a network but do not route traffic (televisions, appliances, IT and AV equipment, spanning household and office use — the same residential-plus-commercial reach the VPF-LPM claims); it references IEC 62301 for the base measurement (instrumentation, stability, uncertainty, input-voltage range) and layers only networked-standby-specific provisions on top. Networked standby for the network infrastructure itself (routers, switches, access points) sits in a third method, the European Telecommunications Standards Institute (ETSI) standard EN 303 423. Both IEC methods were revised in 2026 and now carry formal horizontal / group energy-efficiency status; Edition 3.0 of IEC 62301 draws the boundary explicitly, clarifying that the base method covers all non-active modes *except* networked standby, which is the domain of IEC 63474 (with the two standards' networked-standby definitions now fully aligned). The DCP-LPM today still references the 2011 edition of the base method — the subject of Comment 3.

The EU Ecodesign regime. The European Union has regulated standby and, later, networked-standby power for nearly two decades — the longest-standing and most developed horizontal low-power-mode regulatory regime, and the jurisdiction the staff report itself draws on as a comparator. Structurally it is a horizontal, cross-product set of low-power-mode limits. Critically, it pairs a *measurement method* with a *regulatory limit* — the EN counterparts of the IEC methods above (EN 50564 ≈ IEC 62301; EN 50643 ≈ IEC 63474; ETSI EN 303 423 for infrastructure) are used to enforce the per-mode limits set in Commission Regulation (EU)

2023/826.[3] Those two halves — method and limit — make up a complete regime; the VPF-LPM is building the measurement half. The report's Table 1 sets out the current per-mode limits (from Regulation (EU) 2023/826), which tighten on a fixed schedule through 2027— limits that are function-sensitive as well as mode-based: within standby, a higher allowance applies where an information or status display is present, and within networked standby, a higher allowance applies to HiNA (high-network-availability) equipment than to other networked equipment.

Two features of that regime recur in the comments below: its Article 6 of Regulation (EU) 2023/826 — a circumvention bar on test-detection behavior, discussed in Comment 7, and a software- and firmware-update provision, discussed in Comment 6 — and its open review item on the battery maintenance mode of battery chargers (Article 8 of the same regulation, discussed in Comment 4).

Comments

1. Extend the DCP's own configuration logic to commonly-enabled remote-wake and device-discovery features, as ANSI/CTA-2037-D does for televisions

Measuring products in their default configuration is the right baseline, and NEEA supports it. But the DCP already recognizes that a bare as-shipped default is not, by itself, realistic for connected products: it directs the tester to set up a network connection (DCP Step 4), to enroll the unit in its services and connect its companion app (DCP Section 3.4), and to configure a voice assistant where voice is the product's main interface or essential to its primary function (DCP Section 3.7). In effect, the DCP already follows a "default configuration *plus* commonly-used networking and smart setup" philosophy — it departs from bare default wherever a feature is common enough, or essential enough, that leaving it out would misrepresent normal use.

The gap is that this logic stops at features that are *primary or essential*. Supporting network-reactivation and remote-wake features — the device-discovery and "Smart Wake" behavior that lets a product be woken or cast to by a phone or a smart speaker, or, on the controller side, find and wake the products around it — are left at their default state (DCP Section 3.6), which for these features is commonly *off*, since they turn on only after the user opts in. Yet these features are commonly enabled in real homes and workplaces, and once enabled the product must continuously advertise its presence and listen for wake traffic on the network, or continuously scan for and track the devices it can wake — participating in the discovery mechanisms of the smart-home ecosystems around it, such as the multicast-DNS service discovery underlying Apple AirPlay and HomeKit, Google Cast, and the Matter standard, or the SSDP/UPnP discovery underlying the DIAL second-screen protocol — and draws

[3] Commission Regulation (EU) 2023/826 of 17 April 2023 laying down ecodesign requirements for the off mode, standby mode, and networked standby energy consumption of electrical and electronic household and office equipment; consolidated text (CELEX 02023R0826), current to 24 November 2025.

meaningfully more power.[4] So a device is set up, connected, and measured — but never placed in the discoverable state a comparable in-home unit would be in, and two products with very different real-world inactive draw can report the same number.[5]

The stakes are documented, not hypothetical, and inside the framework's own in-focus list: NRDC's game-console testing measured connected-standby configurations that keep the console reachable by network and voice drawing more than 15 watts continuously, versus 1 watt or less with those wake functions off — an order-of-magnitude difference in inactive draw attributable to wake configuration alone, on a console that ships with the higher-draw setting pre-selected.[6]

The load also runs in both directions, and both roles are represented among the framework's in-focus categories. Wakeable products do inactive-state work *responding* to discovery queries — a streaming media player waiting for a cast request, a game console reachable by its companion app, a soundbar or receiver wakeable over the network, a printer or multifunction device advertising its print and scan services over mDNS to every client on a home or office network. Controller and source products — smart speakers most prominently — do inactive-state work *originating* those queries and tracking the advertisements of the devices they can wake or stream to. And the two mechanisms are distinct: enabling wake and discovery functions raises inactive draw even on a quiet network, while the additional work of actually

---

[4] The principal mechanisms fall into two classes. *Ambient discovery and advertisement traffic*, which a discoverable product answers without waking: multicast DNS with DNS-based service discovery (mDNS/DNS-SD, also known as Bonjour) — the discovery layer for Apple AirPlay and HomeKit, Google Cast, and Matter over Wi-Fi and Ethernet; SSDP under UPnP — the discovery layer for the DIAL protocol used to launch content on a nearby screen and for many AV ecosystems; and Bluetooth Low Energy advertising for proximity discovery. *Directed wake commands*, which end the inactive state: cast requests, app wake commands, Wake-on-LAN "magic packets" addressed to a specific device's network interface, and cloud-relayed commands — a voice instruction routed through a cloud service to the product's persistent internet connection, which likewise requires the product to hold itself network-reachable throughout its inactive state. Matter and the low-power mesh radios associated with it are already named among the communication technologies in Table A-2 of the DCP (Zigbee/Matter, Z-Wave, IEEE 802.15.4 variants).

[5] DCP-LPM V1.0 (Appendix A of the staff report, available on the Low-Power Modes Docket Log). All step and section numbers cited in this comment refer to that procedure: Step 3 tests the unit in the as-shipped, default configuration; Section 3.6 uses the default option for power-affecting settings left to the user's choice (and, where no default exists, the setting yielding the highest power draw); Section 3.4 enrolls the unit in its services and connects its companion app; Section 3.7 sets up a voice assistant where voice is the product's main interface or essential to its primary function; Step 4 establishes the network connection (referencing ANSI/CTA-2049-B for network equipment).

[6] NRDC, *The Latest-Generation Video Game Consoles: How Much Energy Do They Waste When You're Not Playing?* (May 2014), which measured the Xbox One drawing more than 15 W continuously in connected standby awaiting a network or voice wake command — nearly half the console's annual energy — versus under 1 W in its off state; NRDC's testing of the succeeding console generation — "Latest Game Consoles: Environmental Winners or Losers?" (January 2021) — found units capable of drawing under 1 W in energy-saver settings while shipping, outside Europe, with the higher-draw instant-on setting presented as the highlighted initial choice in the setup menu.

responding to and tracking discovery traffic appears only when that traffic is present — and the DCP's test network, by design, carries none: DCP Section 4.2 connects the unit to a dedicated LAN *with no other connected devices*, so even a product with its wake and discovery functions fully enabled would be measured with none of the multicast discovery chatter typical of a real home or office.

Published measurements largely capture the first mechanism (the console figures above are configuration comparisons). The clearest documentation of the combined configured-and-connected state comes from the television side of the smart-home link: NRDC and Pacific Crest Labs measured 2018-model televisions' standby power rising from under 1 watt to roughly 20 watts continuously once the set was linked to a smart speaker for voice wake, and NRDC's 2021 follow-up across ten models found smart-wake standby levels of roughly 5 to 20 watts — increasing a set's annual electricity consumption by as much as 75 percent — while also showing the draw is avoidable by design, since two major brands supported the same features with no noticeable standby increase.[7] This latter example illustrates power management in its plainest sense, the product drawing only the power its enabled functionality actually requires. That work concluded with the same fix recommended here: update the test method so the product is measured connected, with smart-wake features enabled, and the resulting standby power captured and reported.

Notably, the same 2019 study measured two of this framework's in-focus categories directly — smart speakers and video streaming devices — and found their own idle draw modest; but those units were measured as shipped, and the counterpart question for in-focus products — what a smart speaker or streaming player draws while tracking and maintaining wake links to the devices around it — remains essentially unmeasured. The increment may well prove modest for some of these categories; but a populated, discovery-active network is the environment these products inhabit in the field, and the purpose of a data-collection framework is to replace that expectation with measurement.

The measurement environment, not just the product's configuration, determines whether the field-representative load is visible. The DCP's base standard has said as much since the very edition the DCP references: the guidance annex of IEC 62301:2011 cautions that measuring network mode accurately requires "a properly configured network is available and connected to the product," that the measured power can vary with connection speed and with the

---

[7] NRDC and Pacific Crest Labs, *The Energy Impacts of Smart Speakers and Video Streaming Devices* (2019), the first in-depth study of the power drawn by the leading smart speakers and video-streaming products, including the effect of linking a television to a smart speaker for voice wake; and NRDC (N. Horowitz), "Your Smart TV May Have Insomnia and Guzzle Power When 'Off'" (2021). The 2021 analysis reports an average standby power of 0.6 W across the tested models with smart-wake features off, and levels of roughly 5 to 20 watts with the features enabled on the models exhibiting elevated smart-wake standby (two major brands supported the same features with no noticeable standby increase).

number and type of network connections, and that a wireless device merely listening for a connection differs from one whose connection is actually established.[8]

The television test method addresses this directly: ANSI/CTA-2037-D populates its isolated, multicast-capable test network with the very devices that generate this traffic — a smart phone running remote-control and casting apps, and a smart speaker from a major platform — so the unit under test is measured amid realistic discovery activity rather than on a silent bench network.[9] The corresponding IEC television method is moving the same direction: the draft third edition of IEC 62087-3, now at the committee-draft-for-vote stage, defines “smart standby” functions as those that keep the set responsive to discovery and wake packets, adds the smart phone and smart speaker to the test configuration, and tests wake functions in dedicated enabled-state procedures.[10] This is not a new observation: the foundational review of network-connectivity testing, prepared for the Australian government in 2011, concluded that while a disconnected measurement is a valid base case, testing with network functions active is also necessary — because if the power level with network functions active is never tested, manufacturers have no incentive to implement those functions efficiently.[11]

The horizontal test-method literature confirms both the gap and the direction of the fix. IEA 4E EDNA’s 2019 review of network-standby test procedures — spanning more than fifteen horizontal and vertical methods — evaluates them against four criteria: a good procedure is repeatable, reproducible, representative, and reasonable in burden, and it observes that representativeness of real-world use is what policymakers most need from these measurements, provided it can be achieved without undermining the other three.[12] On the variable at issue here, the review found the field unsettled: it identifies network traffic during the measurement as an open gap, with the procedures that address it at all split between deliberate isolation — the European reactivation standard EN 50643 confines the unit to a local network with no wide-area network connection and no other connected products — and

---

[8] IEC 62301:2011 (Edition 2.0), Annex A (informative), Section A.2 (Product modes), guidance on network mode.

[9] ANSI/CTA-2037-D, cited above, Section 7.1.8. Its test network is an isolated, multicast-capable LAN segment dedicated to the unit under test; the smart phone is drawn from a platform with at least 25% U.S. unit-sales market share and runs the most recent operating system offered on that platform, and the smart speaker from a platform with at least 15% U.S. unit-sales market share.

[10] IEC 62087-3, Edition 3.0 committee draft for vote (CDV), definitions of smart standby and its sub-functions (wake-by-remote-control-app, wake-on-cast, wake-by-smart-speaker) and the prompted-functions configuration rules. As a committee draft under ballot, its provisions and clause numbering are subject to change before publication; it is cited here as an indicator of the direction of the international method, not as a settled requirement.

[11] Bruce Nordman, *Testing products with network connectivity*, prepared for the Australian Government, Department of Climate Change and Energy Efficiency (June 21, 2011).

[12] IEA 4E EDNA, *Test Procedures for Measuring Network Standby Power* (prepared by Xergy Consulting, August 2019) — a review and gap analysis of horizontal and vertical network-standby test procedures, including IEC 62301, EN 50643, and the ENERGY STAR program methods.

low-rate synthetic traffic, as in the ENERGY STAR small-network-equipment method's uniform 1 kilobit per second. It also reports that no systematic study of how network setup conditions affect measured network-standby power had been conducted, and its recommendation is the one this comment makes structural: gather and share data on how setup conditions affect the measurement, and converge on standardized conditions from that evidence. NEEA expects that evidence to point toward the balance this comment describes: the network configured as the manufacturer intends, the product's functionality enabled, the traffic that configuration itself generates present — and external traffic beyond that held to a minimum. That condition sits on the favorable side of a real home or office network, but it is far more representative than a severed wide-area connection or an arbitrary synthetic rate. The framework's iterative design is built to do exactly this.

The federal record illustrates the same gap: in its recent test procedures for cooking products, the U.S. Department of Energy specified that connected units be tested with network functions disabled, declining to establish a connected test configuration for want of data on what a representative configuration would be.[13] A finding that representative-configuration data does not yet exist is not an argument against measuring connected functions — it is the case for a data-collection framework in which participants measure them and report the configurations and counterpart devices they used, producing precisely the record a future test-procedure proceeding would need.

Deliberate isolation is a defensible convention where the power required is the cost of merely maintaining a connection: it maximizes repeatability and reproducibility, the two properties a measurement method cannot do without — though at a price in representativeness, the EDNA review's third criterion and the one it found policymakers most need. But for products whose advertised function is to be discovered and woken by the devices around them — or to discover and wake those devices — isolation excludes the very load the measurement exists to capture — and among the methods the EDNA review examined and the standards discussed in this letter, the populated-network alternative appears only in the vertical television methods described above. European guidance itself articulates the underlying principle — the European Commission's guidance on the standby regulation quotes the harmonized standby measurement standard, EN 50564, as providing that the product modes tested should be consumer relevant and representative of expected normal use[14] — yet the companion

[13] U.S. Department of Energy, Energy Conservation Program: Test Procedure for Microwave Ovens, final rule, 87 FR 18261, 18267–18268 (March 30, 2022). DOE stated that it lacked sufficient data to design a test that measures connected-function energy use representatively, and that without such data it could not establish a representative test configuration; it therefore required network functions to be disabled where the user manual provides a means, and testing in the factory-default or as-shipped condition otherwise. The same instruction is codified for conventional cooking tops at 10 C.F.R. part 430, subpart B, appendix I1, § 2.1, established by 87 FR 51492 (August 22, 2022).

[14] European Commission, Energy Efficient Products, frequently asked questions on the standby regulation, "Should the standby consumption still include the consumption of the display?", quoting Clause 5.2 of EN 50564 and

reactivation method still measures in deliberate isolation. The framework is positioned to be the first horizontal program to align the measurement with the principle, and to do so at data-collection stakes rather than compliance stakes — the setting in which a specification like this is best worked out.

The DCP's own supporting-function taxonomy reflects the gap. Table A-2 of the DCP names Communication (tested connected to a live network), Voice interface (tested simply by keeping the room quiet), Sensing, and Remote Control — but no supporting function for network reactivation or device discovery, and no function distinguishing *wake-by-voice* — the always-listening capability that wakes a product from its inactive state, which raises inactive draw — from a voice interface generally, which is an active-mode function. The closest entry, Remote Control, directs that the unit be set up so that it *may* be controlled remotely (batteries in the remote, app connected) but not controlled during the test — language that could be read to require enabling network discoverability, yet sits unresolved against DCP Section 3.6's keep-the-default rule. The DCP thus neither names these inactive-state wake functions nor resolves whether its own Remote Control setup requires them to be enabled.

This is the blind spot NEEA's television standby work resolved: ANSI/CTA-2037-D requires a single standby test, conducted with the set connected and with as many of its smart-wake features enabled as possible, and labels the reported result with the features that were enabled — precisely so that an off-by-default supporting feature does not disappear from the measurement.[15]

NEEA recommends the Commission extend the DCP's own configuration logic accordingly: add network reactivation / device discovery and wake-by-voice to Table A-2 of the DCP as named supporting functions, distinct from Communication and Voice interface; and, for products that offer them, enable these functions for the inactive-condition measurement and include devices that exchange discovery traffic with the unit under test in the test setup — counterpart devices appropriate to the product's role: controller devices (a smart phone and smart speaker, as the television method specifies) for wakeable products, and discoverable client devices (a television or streaming media player, for example) for controller products such as smart speakers. As in the television method, this is a single inactive-condition test — the DCP's existing measurement, conducted with these functions enabled and with the enabled functions recorded in the DCP's supporting-function fields — not an additional test condition. DCP Section 5.7, which directs the tester to close the companion app and disable PAN connections between the unit under test and the device carrying the app, would be amended in step for products measured in this condition. Its purpose survives intact: no app interaction and no

---

stating that all relevant product modes and configuration options expected to be employed by final users are to be tested.

[15] ANSI/CTA-2037-D, cited above, defining the smart-wake behaviors Wake-By-Remote-Control-App, Wake-On-Cast, and Wake-By-Smart-Speaker; the single-test structure is stated in the method's Interpretation Letters (July and December 2024). The labeled result corresponds to Standby Active as used in EPA's ENERGY STAR televisions specification, Version 9.

directed wake command occurs during the measurement window — the boundary stated below — while the app's ambient presence on the network is precisely what the condition exists to measure. The rationale mirrors the one the DCP already accepts for connectivity itself: DCP Step 4 requires a network-capable product to be tested connected because such products are intended to be used connected. Products sold into today's smart-home environment are increasingly intended to be integrated — woken and controlled by phones, speakers, and other devices on the network, or doing the finding, waking, and controlling themselves — and measuring the discoverable state applies the same realism principle one step further. With effective measurement protocols and performance targets, mains-powered smart-home devices should be able to operate in a representative smart-home environment at standby power levels comparable to those achieved by battery-powered mobile devices.

Two boundaries keep this condition well defined. First, it should be specified functionally rather than by packet type: the product's advertised remote-wake and discovery features are enabled and demonstrated operable (with a verification wake performed outside the measurement window), the counterpart devices' ambient discovery traffic is present throughout, and no directed wake command — a cast request, an app wake, a Wake-on-LAN magic packet — is issued during the measurement itself, since a directed command ends the inactive state rather than characterizing it. Ambient discovery traffic does not wake a discoverable product; answering it is precisely the inactive-state work at issue. Second, arming a low-level wake mechanism such as Wake-on-LAN is not a substitute for enabling the product's advertised smart-wake features. Pattern-matching for a magic packet is inexpensive, while maintaining discoverability carries the real-world draw — the television data above includes a set wakeable by phone at under 1 watt in its default eco mode that required its 14.4-watt quick-start state for cast and voice wake to function — and permitting the substitution would let the low-cost mechanism stand in for the high-cost one the condition exists to measure. A functional definition also travels across a horizontal framework in a way a packet-level prescription cannot: each product's actual wake mechanism, whatever it is, carries its actual cost into the reported number. And it travels through time the same way: because the counterpart devices are specified by product requirement rather than by protocol — a smart phone on a major platform running the most recent operating system offered on that platform, in the television method's formulation — the ambient traffic they generate evolves with the ecosystem itself, and a new discovery protocol such as Matter enters the measurement environment when it enters real homes, with no amendment to the procedure. The trade is some exact comparability across test dates in exchange for representativeness across the framework's life — the right trade for a data-collection program whose subject is a moving ecosystem, and a managed one: the reported counterpart devices and the version fields recommended in Comment 2 record what generated the traffic behind each measurement.

Neither boundary moves the measurement out of the inactive condition. The framework defines the inactive condition by the product not performing its primary function for a user — and a speaker's primary function is producing sound, as a streaming media player's is delivering content to a display. Standing ready to be discovered and woken performs none of these functions; it is readiness the product maintains precisely while inactive, and measuring it enabled measures the inactive state as configured, not an active state. The measurement discipline in the condition reflects this: ambient discovery traffic is answered without waking, and any directed command that would actually end the inactive state is excluded from the measurement window. IEC 62301 draws the same line: the published 2026 third edition defines networked standby — the mode in which equipment can be switched into a different mode (with more functions) via a network reactivation function — as a standby mode within the family of non-active modes, the modes in which a product provides no primary functions (Subclauses 3.1.2.3 through 3.1.2.5 of IEC 62301:2026).[16]

Because the framework spans residential and commercial applications, the counterpart-device concept must be defined for both contexts. The principle is identical — measure the product amid the discovery and wake traffic of the environment it is sold into — but the appropriate peers differ. A residential product lives among smart speakers, phones, and televisions; a commercial product may instead be woken, polled, or tracked by room-control processors, digital-signage and device-management platforms, and the building network itself. NEEA does not attempt to specify commercial peer devices here; the point is that "representative environment" is context-dependent, and the commercial half of the framework needs its own answer to it.

Interlaboratory comparability then requires that these peer devices be cleanly specified — an uncontrolled peer device is an uncontrolled variable. The television methods show what the end state looks like: ANSI/CTA-2037-D constrains its test devices with product requirements — a smart speaker from a platform holding at least 15 percent U.S. unit-sales market share, a smart phone on a major platform running its current operating system — and the draft IEC revision takes the same approach. NEEA does not propose to write those requirements in comments. Instead, NEEA recommends the Commission use the framework's own iterative design to converge on them: in the near term, ask participants to select suitable peer devices and report what they used — the DCP's reporting template can capture this alongside its existing supporting-function fields — and, after an iteration or two of observing industry's choices, standardize peer-device requirements in a subsequent DCP version. That sequence fits a voluntary framework, draws on manufacturers' knowledge of their own ecosystems, and ends at the clean specification that interlaboratory comparability requires.

The international policy literature supports treating connectivity's standing power cost as a first-class measurand. The IEA 4E EDNA platform — the successor to the IEA's two decades of standby-power work — frames connected-device policy as a balance: connectivity can deliver real energy benefits (EDNA's analyses credit connected-home technology with potential household savings on the order of 20 to 30 percent), but providing it carries a price in the added power a product draws to stay connected, and EDNA's policy guidance urges distinguishing devices whose connectivity delivers energy benefits from those where it is

[16] IEC 62301:2026 (Edition 3.0), Subclauses 3.1.2.3 (non-active mode), 3.1.2.4 (standby mode), and 3.1.2.5 (networked standby mode), available from the IEC webstore.

overhead alone.[17] Efficiency programs already credit the benefit side of that ledger: ENERGY STAR's consumer refrigeration specification, for one, grants an energy-use allowance to models meeting its connected criteria (demand response among them).[18] A single enabled-state measurement cannot make that distinction by itself — the benefit side of the ledger lies in what a product's connectivity does for other systems, outside any inactive-condition test. What a DCP dataset measured as recommended here supplies is the cost side, product by product: what each product actually draws to keep its connectivity functions available and, across products advertising the same functions, how much of that draw is design choice rather than the price of the function. That measured cost is the number any claimed connectivity benefit must be weighed against. A complete energy accounting would eventually go further — measuring each representative mode and pairing the results with estimates of time spent in each, the pieces from which whole-product energy can be assembled. NEEA offers that as a direction for the framework's future iterations to consider, not a present recommendation.

NEEA recognizes the tension this creates with a horizontal method: which supporting features count as "commonly used" is partly product-specific and cannot be settled for all categories at once. But this is not new territory for the DCP, which is already a horizontal core that references category-specific test methods where needed — it points to ANSI/CTA-2049-B for network-equipment setup (DCP Section 4.1) and to the ENERGY STAR method for imaging equipment. A configured-and-connected condition fits the same structure: a horizontal principle — measure the commonly-enabled network-reactivation and remote-wake functions in the DCP's existing supporting-function taxonomy — implemented through category-specific configuration definitions built out over the framework's iteration loop, with ANSI/CTA-2037-D as the proven model for televisions. IEC 62301:2026 is built on the same division of labor: its scope states it is intended to be used by technical committees preparing product publications, it directs referencing standards to define and name the non-active mode being tested, and it provides that additional requirements specified by product performance standards are to be applied. (The standard that supplies the networked-standby test steps for this condition is identified in Comment 3.)

---

[17] IEA 4E EDNA (Efficient, Demand-Flexible Networked Appliances platform; formerly the Electronic Devices and Networks Annex): *Harnessing IoT for Energy Benefits* (February 2021); *Intelligent Efficiency — A Case Study of Barriers & Solutions — Smart Homes* (March 2018), the source of the 20–30 percent connected-home savings estimate; *Energy Efficiency of the Internet of Things — Technology and Energy Assessment Report* (iHomeLab, 2016); *Policy Guidance for Smart, Energy-Saving Consumer Devices* (2021), summarized in an EDNA policy brief; and the EDNA Total Energy Model, which models the aggregate energy consumption of connected devices in network standby.

[18] ENERGY STAR Program Requirements, Product Specification for Consumer Refrigeration Products, Version 5.1 — its connected criteria and the connected allowance applied in its qualification equation for models meeting them.

2. Give testers determinate setup rules — and state what the reported value represents

Three of the DCP's setup instructions leave the tester without a determinate rule, and because inactive-power results can turn on small setup differences, ambiguity here translates directly into laboratory-to-laboratory variation in the dataset. A fourth question concerns not setup but reporting: what the submitted value itself represents.

First, DCP Section 3.4 requires the tester to "enroll in services," giving a companion app as the example, but does not bound which or how many services. For a product in a large service ecosystem — a smart speaker, for example, or a commercial device that can be enrolled in a manufacturer's fleet- or device-management platform — enrollment could reasonably stop at the manufacturer's companion app or extend to any number of optional integrations, and different laboratories will make different choices. NEEA recommends the Commission state the intended scope: for example, enrollment in the manufacturer's own companion app or service required to set up and operate the product, with optional and third-party services declined.

Second, the boundary between DCP Section 3.4 (enroll in services) and DCP Section 3.9 (decline registration, licenses, and subscriptions where possible) is implicit. Read together, the operative line appears to be *necessary versus optional* — enroll in no-cost services needed to set up and operate the product; agree to required license terms; decline registration and optional or paid add-ons unless required to enable the primary function — but the DCP never states it. Making that line explicit would prevent the two sections from being read to conflict.

Third, DCP Section 3.6 turns on whether a user choice "potentially impact[s] power," but gives the tester no way to identify that at setup time — the power impact of a setup choice is precisely what the test has not yet measured. NEEA offers for the Commission's consideration a determinate rule modeled on the one the television method already uses. ANSI/CTA-2037-D's Home Configuration provisions resolve setup prompts with a graduated sequence: content downloads are declined and accessibility features handled separately; for other forced choices the most energy-consumptive configuration is selected, and where the energy impact cannot be determined, the configuration that enables more functionality is selected (with features that analyze past usage behavior never enabled).[19] Applied to the DCP, the analogous rule would keep DCP Section 3.6's take-the-default instruction where a default or pre-selection exists, and — where none exists, or where the tester cannot determine whether a choice affects power — select the option enabling more functionality. The draft third edition of IEC 62087-3 takes the same approach in simpler form: accept a prompted choice's pre-selection where one exists; where a forced choice offers no pre-selection, select the option with more functionality.[20]

Functionality is observable at setup time where power impact is not, so the rule is repeatable across laboratories, and it generalizes the instinct already present in DCP Section 3.6's

---

[19] ANSI/CTA-2037-D, cited above, Home Configuration provisions.

[20] IEC 62087-3, Edition 3.0 CDV, cited above (with the same draft-status caveat), setup and configuration provisions.

highest-power fallback. A functionality-forward rule would also capture wake and discovery features when the setup flow offers them (complementing Comment 1, which addresses the same features when they are never offered and sit off by default in a settings menu).

Fourth — offered as a question the framework should answer rather than as a defect — the DCP does not state what its reported values represent. The DCP's reporting structure is that of a test report: the minimum data reported for a valid test comprises the details of an identified unit and an identified test, including the measured Pavg and Plast15 (its Section 10). That structure implies the most useful answer — one unit, tested once, reporting what was measured — but it implies it only. Three questions are left open. Whether a single unit is sufficient is unstated: the unit under test is singular by grammar, not by rule, and nothing addresses testing more than one. Nothing governs selection: a participant could test several units and submit the test report of the most favorable, each field truthfully describing a real test. And nothing states that the reported value must be the measured value rather than a number chosen to stand above it.

That last silence matters more than it may appear, because participants will arrive from programs where the reported number is deliberately not the measured one. The Department of Energy's certification regime requires a represented value no lower than the higher of a sample mean or an upper-confidence-limit statistic computed from at least two tested units (10 CFR Sections 429.11 and 429.25), because its figures are enforceable representations carried onto the FTC EnergyGuide label (16 CFR Section 305.8(c)) — conservative margins are the point. California's own Title 20 certification regime requires that reported values be no more favorable than the test results and be declared true, complete, and accurate under penalty of perjury (20 CCR Sections 1606(a)(3)(D) and 1606(a)(4)), but it imposes no statistical margin and no minimum sample size — and it expressly permits reporting values less favorable than the test result, which is how a program cap or compliance margin enters a certified listing. These are reasonable behaviors for compliance representations. Imported into a data-collection framework, they would quietly change what the dataset is: an analyst could no longer tell whether a reported watt was measured or chosen.

NEEA therefore recommends the framework state its answer explicitly, in five short rules:

- **Reported values are measurements, not representations.** Every reported power value is the as-measured output of the identified test — no margins, adjustments, or substituted values. Because the framework's figures are not compliance representations, the federal represented-value machinery does not apply and should not be imported by habit.

- **A single tested unit is sufficient.** This is proportionate to a data-collection instrument, consistent with existing Title 20 certification practice in the database that will host this data, and meaningful given that the DCP's authors consider the procedure reproducible to within 5 percent, or 0.05 watts below one watt, on a given unit.[21]

- **Testing additional units is welcome, with full disclosure.** The submission declares how many units were tested and includes each unit's results, with no selection among them; the Commission may compute and display an across-units mean, with the per-unit records retained beneath it.

- **Every reported figure identifies the configuration measured.** The software and firmware version fields the DCP already collects should be required wherever the product exposes them, together with the as-tested state of any user-selectable setup options bearing on power — the choices offered in a setup menu or identified in the user guide.

- **The trace behind each number is submitted.** The instrument log from which each reported value is computed — power versus time at the instrument's recording interval, in a machine-readable format — accompanies the summary values, for the inactive-condition measurement and, where an off mode is tested, the off-mode measurement as well.

The trace rule deserves a word of explanation, because it is the one item here the DCP has not already implied — and yet the DCP has half-adopted it. Plast15 exists precisely because products step down over the measurement window, and the DCP's Section 10 already recommends documenting out-of-the-ordinary power behavior and submitting it through the docket for later reference. A uniform trace requirement converts that discretionary recommendation into data. It makes visible whether a product occupies one inactive state or cycles among several sub-modes, whether the stabilization criteria are doing their job, and — when the Commission samples submissions for reproducibility — why two laboratories' results differ rather than merely that they do. And it asks only for a file the instrument has already created in computing the reported average. NEEA recommends the traces be part of the published dataset: the framework's purpose is shared understanding of non-active-mode behavior, and stakeholders can learn from traces what no summary value can carry. Should the Commission conclude that publication raises concerns for particular product categories, requiring submission without publication preserves the step that matters most — the Commission would still see the behavior — and the publication question could be revisited as the framework matures.

These rules ask little of participants — the measurement and version-field rules make explicit what the DCP's structure already implies, the single-unit rule adopts the least burdensome posture available, and the trace rule asks only for a file the instrument has already created — and their return is that every number in the dataset means one knowable thing. They also carry

---

[21] Statewide Codes and Standards Enhancement (CASE) Team, *Data Collection Procedure for Low-Power Modes, Version 3.1*, Docket 17-AAER-12, TN 265203 (July 2025), stating the CASE Team's criterion that results within 5 percent (or 0.05 watts where measured power is below one watt) demonstrate repeatability and reproducibility.

a compounding benefit: multi-unit submissions will, over the framework's iterations, characterize unit-to-unit variation empirically, the very quantity no program has measured, and the evidence needed to refine the data-currency threshold recommended in Comment 6.

3. Update the base method from IEC 62301:2011 to IEC 62301:2026, and incorporate the networked-standby provisions of IEC 63474

The DCP-LPM currently references IEC 62301:2011. As the standards context above notes, Edition 3.0 was published in May 2026;[22] for this proceeding, the revision is consequential rather than a routine reference update, in four specific respects:

- It is now published as a **horizontal / group energy-efficiency standard** under IEC Guide 118, formally establishing IEC 62301 as a cross-cutting method intended to be referenced by a wide range of product committees — the same cross-cutting logic the VPF-LPM applies, and thus direct international support for the framework's approach. The title change from the 2011 edition ("Household electrical appliances — Measurement of standby power") to the 2026 edition ("Measurement of standby power for appliances and equipment") reflects that broadened, horizontal scope.
- Its scope now **extends to products powered by an internal battery and by DC**, closing the integrated-battery gap the current DCP explicitly notes.
- It **draws the boundary with networked standby explicitly**: Edition 3.0 clarifies that IEC 62301 covers all non-active modes *except* networked standby, which is the domain of the companion standard IEC 63474, and the two standards' networked-standby definitions are now fully aligned. Networked standby — the behavior at issue in Comment 1 — thus has a dedicated method the base standard explicitly points to, rather than being left implicit.
- It **tightens the measurement method itself** — refined power-measurement-uncertainty and stability requirements aimed at the difficult low-power loads (high crest factor, low power factor) this framework measures, and mandatory test-data logging, both informed by technical input Pacific Crest Labs provided on behalf of NEEA during the edition's development — along with a revised non-active-mode vocabulary aligned with IEC 63474. For a procedure whose entire output is low-power readings, these changes go directly to whether numbers reported by different laboratories are comparable.

There is support in this docket's own record for the move. The Statewide CASE Team concluded at the outset of the roadmap that IEC 62301 is sufficient for measuring low-power-mode power but provides no product set-up instructions for network connections, sensors, or other wake

---

[22] IEC 62301:2026 (Edition 3.0, 2026-05), *Measurement of standby power for appliances and equipment* (horizontal / group energy-efficiency publication), available from the IEC webstore. IEC 62301:2011 (Edition 2.0) is the edition currently referenced by the DCP-LPM.

triggers, and that no harmonized procedure then supplied them.[23] IEC 63474 — the companion horizontal method for networked standby of edge equipment, whose Edition 2.0 (2026) carries the same horizontal / group energy-efficiency status[24] — is precisely what now supplies them.

Because IEC 63474 layers only networked-standby-specific provisions on top of the IEC 62301 base (referencing IEC 62301 for instrumentation, stability, uncertainty, and input-voltage range), the practical question is not wholesale adoption but which of its provisions add value the DCP does not already obtain from IEC 62301. The clearest candidate is IEC 63474's dedicated method for testing power management and whether a device's wireless/network connection can be deactivated (its Clause 6.4, with the wireless-deactivation steps in its Subclause 6.2.2) — the device-discovery / active-standby behavior identified in Comment 1. **NEEA recommends the Commission move the DCP's base method to IEC 62301:2026 and incorporate the networked-standby-specific provisions of IEC 63474.** Because these are substantial revisions rather than a cosmetic version change — new measurement-uncertainty and stability requirements, the battery/DC scope extension, and the explicit carve-out of networked standby to IEC 63474 — NEEA suggests the Commission afford stakeholders an opportunity to review the 2026 editions as part of the transition, so that the DCP is rebased on a method set participants have had the chance to verify.

4. Clarify how the framework treats battery-charging-system devices and their charging docks

Battery-charging products do not fit the DCP's mains-connected, single-inactive-condition model cleanly, and the test method that best applies depends on the product's architecture and how it is actually used. Two common architectures pull in opposite directions.

Integral charging (e.g., robot vacuums). The unit sits on its dock most of the time, so the docked load is what matters, and it has two distinct components. The charge-and-maintenance draw — topping the battery off and holding it at its limit — is the Battery Charger System (BCS) test method's territory, not the DCP's; the current DCP is expressly not developed for integrated-battery devices, and a detached-dock reading would miss the docked-maintenance load entirely. IEC 62301:2026 addresses this directly: it pulls battery maintenance mode into the inactive measurement (its Subclause 3.1.2.7, which explicitly contemplates a battery-powered robot vacuum) while excluding active charging, and its setup provisions measure with the battery installed and fully charged where the charger has no separate power-supply function (its Subclause 5.2). Maintenance-mode power, moreover, need not be constant: depending on the product's charge-management design, it can consist of long

---

[23] Statewide CASE Team, *Low Power Mode — Title 20 Standards Development, Codes and Standards Enhancement (CASE) Initiative for PY2017*, Docket 17-AAER-12, TN 221214 (Sept. 18, 2017).

[24] IEC 63474:2026 (Edition 2.0, 2026-06), *Electrical and electronic household and office equipment — Measurement of networked standby power of edge equipment* (horizontal / group energy-efficiency publication). Edition 1.0 (2023) was a fast-tracked adoption of EN 50643:2018.

low-power stretches punctuated by brief top-up cycles hours apart, so the measurement must run long enough to average over a full cycle — variable behavior IEC 62301's averaging and stability provisions are built to handle, and one more argument for the instrument traces recommended in Comment 2.

The second component — the networked / scheduling standby riding on top (always-listening, app, voice, and over-the-air draw) — is not reliably captured by BCS testing as standardized: the federal procedure measures standby with the battery removed and runs on IEC 62301:2011, which predates networked standby and has no step that places the unit in a connected, discoverable state,[25] so it has the same blind spot Comment 1 identifies. In the 2026 IEC scheme that slice belongs to IEC 63474, which specifies the measurement routing for this exact battery-dock architecture (its Subclause 6.5(c): where the battery is not user-removable, it is fully charged and the networked-standby draw measured per IEC 62301). A robot vacuum thus genuinely requires both treatments — BCS-type treatment for the charge / maintenance envelope, and an IEC 63474-style connected measurement for the networked standby.

Accessory docks with removable batteries (e.g., cordless drills and lawnmowers, in consumer and professional use alike). Here the model is reversed: the user removes the battery and charges it on a separate dock, often only shortly before use, and for battery health deliberately does not leave it on the charger. The dock therefore spends most of its life plugged in with no battery in it — simple no-battery standby at the plug, a straightforward DCP-style measurement, with the BCS charge/maintenance machinery largely moot. (IEC 62301:2026 anticipates this case as well: a note in its Subclause 5.2 allows a charging base station to be measured without the batteries or the host product attached.)

Two clarifications follow. First, the framework should specify which method applies to which architecture, rather than assume one inactive mode dominates when, across products, it plainly does not. Second, and more consequential, the Commission should clarify the scope status of bundled-but-non-integral charging docks. A standalone dock that ships with a product is, in its own right, a battery charger, and the federal picture is both broad and unsettled: DOE defines "battery charger" to include chargers embedded in other products and has stated that most consumer chargers are in scope (so many docks are federally covered, hence preempted, hence outside VPF-LPM today), but the coverage has holes — backup chargers and uninterruptible power supplies are excluded federally and fall to California's own Title 20 — and DOE has proposed (May 2025) to rescind the battery-charger standards in their entirety.[26] The Commission should confirm the current status of that proposal.

NEEA therefore recommends that the Commission (a) map each in-focus category's charging load against both federal coverage and Title 20, and (b) not treat battery-charging loads as

---

[25] 10 CFR part 430, subpart B, appendix Y/Y1 (battery charger test procedure), which incorporates IEC 62301:2011.

[26] DOE, Energy Conservation Program: Rescinding the Efficiency Standards for Battery Chargers, notice of proposed rulemaking, 90 FR 20868 (May 16, 2025). As of July 2026 the rescission remains a pending proposal; no final rule has issued.

permanently out of scope on preemption grounds — if the federal standard is rescinded, those loads could become exactly the kind of unregulated plug load the VPF-LPM exists to address. NEEA further recommends resumption of the Title 20 BCS standard should the federal battery-charger regulation be rescinded and preemption no longer apply. Because California's small-BCS provisions sunset at the 2018 federal effective date, and its standard for federally regulated chargers is keyed to those products actually being federally regulated, a rescission more plausibly leaves a coverage gap for a CEC rulemaking to fill than a standard that snaps back automatically; whether preemption lifts on rescission is itself a question for the Commission's legal staff.

This boundary is not unique to California. The EU's own Ecodesign review agenda for Regulation (EU) 2023/826 (Article 8) expressly lists the battery maintenance mode of battery chargers as an open question for its 2027 review[27] — which both validates raising the issue here and offers a parallel track to watch.

5. Define the iteration cadence, and a stakeholder pathway for nominating categories into focus

The iteration design in Chapter 2 of the staff report leaves two process points open. First, only the initial data-reporting loop is specified (six months); the cadence of subsequent loops is not stated. Because the entire framework runs on that iteration loop, NEEA recommends the Commission state the intended cadence of subsequent loops. Second, the report does not say whether an outside stakeholder can formally nominate an out-of-focus (or out-of-scope) category into focus, or only respond once staff moves one. A defined nomination pathway would let regional stakeholders surface priorities directly rather than waiting on the Commission's own scan, which also serves the framework's stated aim of catching savings opportunities as they emerge. NEEA recommends the Commission establish and describe such a pathway.

6. Address post-sale drift: a connected product's inactive draw can change after it is measured

A single point-in-time DCP reading cannot capture what happens when a later software or firmware update adds features or changes behavior — always-on listening, background processing, and general capability creep can each raise a connected product's inactive draw over its life. This compounds Comment 1: the connected products whose Smart Wake draw is under-measured at default settings are also the ones most prone to post-sale drift. The DCP itself acknowledges the phenomenon at the bench scale: it directs testers to update to the

---

[27] Regulation (EU) 2023/826, cited above, Article 8 ("Review"), item (d).

latest software version before testing (its Section 3.5), invalidates any test interrupted by an update (its Section 9.1.3), and includes software version among the reported unit details.

The European Union has addressed drift at the regulatory level: the second paragraph of Article 6 of Regulation (EU) 2023/826 provides that a product's declared energy consumption may not deteriorate after a software or firmware update — measured with the same test standard used for the original declaration — without the user's explicit consent.[28] (The same article's first paragraph, barring test-detection behavior, is a separate matter taken up in Comment 7.) NEEA is not suggesting the framework import the update-deterioration prohibition. The VPF-LPM is a voluntary data-collection framework, not a regulatory regime; it sets no limits, so there is nothing for an update to violate, and a consent requirement has no natural home in a test procedure. The mechanics also counsel restraint: Article 6 defines deterioration by re-measurement, so a manufacturer can know an update's effect only by re-testing, and software developers have documented the friction between update-consent rules and security patching.[29] A manufacturer may genuinely not know in advance whether a new feature, a required companion application, or a platform opened to third-party software will change a product's inactive draw. Should the framework mature into performance limits or voluntary industry agreements, the Commission should at that stage consider an Article 6-style user-notification principle — a manufacturer flags to the user when an update or newly enabled capability moves the product past the applicable level. In the framework's present form, the right mechanism is simpler: keep the data current.

NEEA accordingly recommends a data-currency rule, stated in the DCP's own register: a reported value describes the product as tested, identified by its software and firmware version; if the product in its DCP tested configuration comes to draw more than 20 percent above its current reported value — each quantity compared against its own kind, Pavg against Pavg and, where reported, Plast15 against Plast15 — or more than 0.2 watts above it, whichever is greater, for products reported below one watt, the prior submission is no longer current, and data for the model shall be resubmitted. The trigger is deliberately cause-agnostic: a software update, a component change within the model, or a newly required companion application all stale the data equally, and the rule attaches to the measured outcome rather than to any inquiry into what the manufacturer knew or intended. It is also deliberately one-directional: no rule is needed where power falls, because the incentive to resubmit already points that way; the currency rule matters precisely where the incentive runs against disclosure.

The threshold is a suggested starting value, not a derived one — chosen to sit well clear of the procedure's documented reproducibility band and of typical unit-to-unit variation, which is a distinct and larger source of spread, particularly at low standby power levels. The DCP's authors consider results within 5 percent, or 0.05 watts below one watt, to demonstrate the

---

[28] Regulation (EU) 2023/826, cited above, Article 6 ("Circumvention and software updates"), second paragraph.

[29] ACT | The App Association, "How the European Commission's Proposed Ecodesign Requirements Could Affect Software Developers" (August 2, 2022), documenting cybersecurity and development concerns raised by provisions allowing users to reject software updates or downgrade operating systems.

procedure's repeatability and reproducibility;[30] the recommended trigger sits at four times that band in both regimes, and the Commission's stated plan to sample submitted data for reproducibility — together with the multi-unit submissions contemplated in Comment 2 — will, over the framework's iterations, generate exactly the evidence needed to refine it. This rule requires nothing of the DCP that it does not already contain: the version fields exist, the principle that an update invalidates a measurement exists in Section 9.1.3, and Comment 2's definition of the reported value supplies the baseline the trigger compares against.

7. The DCP should require that reported data be unaffected by test detection

The EU's standby regulation opens its Article 6 with a circumvention bar: equipment designed to detect that it is being tested — including by recognizing the test conditions or test cycle — and to react by automatically altering its performance to reach a more favorable level may not be placed on the market.[31] The provision applied from the regulation's entry into force in 2023, ahead of every other requirement, and under the regulation's verification annex a violation renders the model and all equivalent models non-compliant outright.

The DCP should carry the equivalent requirement, stated in its own register: a product tested under the DCP shall not detect test conditions and alter its power behavior in response, and a reported value shall reflect the product's behavior as it occurs outside a test environment. Data affected by test-detection behavior is not valid DCP data. The requirement does not depend on limits existing — it protects the measurement itself, and in a framework whose entire output is the dataset, the integrity of the measurement is the product. NEEA recommends the Commission add this requirement to the DCP.

8. The framework's commercial side is asserted but never sized

The VPF-LPM is described as spanning residential and commercial applications, but every quantitative anchor in the staff report is residential: the Natural Resources Defense Council's (NRDC) finding that idle load is roughly 23% of home electricity use, the approximately $165/home/year and $19 billion national figures, and the roughly 65 devices per household.[32] There is no commercial counterpart to any of it — no estimate of how much commercial low-power-mode or idle energy is at stake, and no baseline TWh or dollar figure — so the report asserts commercial coverage without giving the Commission a basis for scoping the

---

[30] CASE Team, *Data Collection Procedure for Low-Power Modes, Version 3.1*, TN 265203, cited above.

[31] Regulation (EU) 2023/826, cited above, Article 6 ("Circumvention and software updates"), first paragraph.

[32] *Home Idle Load: Devices Wasting Huge Amounts of Electricity When Not in Active Use*, NRDC issue paper (May 2015). NRDC's measurements were drawn from Northern California homes; as noted in NEEA's separate savings-potential work, the national whole-home figures are not directly transferable to a Northwest or per-category estimate.

commercial half (a point raised during the June 24 workshop). NEEA recommends the Commission either ground the commercial side quantitatively or acknowledge the gap. NEEA is positioned to help close it: a regional commercial estimate can be built from NEEA's Commercial Building Stock Assessment (CBSA) — the regional Northwest counterpart to the residential Residential Building Stock Assessment (RBSA) — benchmarked against the U.S. Energy Information Administration's (EIA) national Commercial Buildings Energy Consumption Survey (CBECS), the commercial counterpart to the NRDC residential data. NEEA's 2025 CBSA fieldwork recently concluded, so the regional commercial picture is being refreshed now.

Minor editorial comments

Name the governing statute (California Title 20) in the second scope exclusion. The staff report's second scope exclusion (Chapter 2) reads "state-regulated appliances with a … requirement for standby power" but does not identify which state's rules count. In the context of a California sale, it can only mean California's own Title 20. Because the treatment of televisions, computers, and computer displays rides on that reading — those products are excluded via a state standard rather than a federal one — and because other states do regulate some of these products (so a broad reading of "state" would sweep more widely than the Commission likely intends), NEEA recommends the Commission name Title 20 on the face of the exclusion. This is a clarification rather than a change of substance, and it directly answers the scope-clarity concern the report itself raises at the top of Chapter 2.

Consider aligning the framework's family terminology with the revised IEC vocabulary. The 2026 editions of IEC 62301 and IEC 63474 organize the territory this framework measures under *non-active modes* — the modes in which a product provides no primary function — with standby and networked standby defined within that family. "Low-power mode" is not a defined term in either standard, and it can mislead in both directions: some non-active modes are not low in power (the smart-wake levels in Comment 1), while genuinely low-power idle states — in which a product remains on and functional — sit outside the family altogether. NEEA does not suggest renaming the framework; it suggests that, as the DCP is revised, staff consider adopting the IEC family vocabulary in the DCP's definitions, so that the framework's terms track the international methods it references.

Closing

NEEA appreciates the opportunity to comment on the draft staff report and supports the Commission's development of the Voluntary Performance Framework for Low-Power Modes. One forward-looking note: as the framework matures from data collection toward performance targets, NEEA recommends the Commission consider a target architecture keyed to functions as well as modes, worked out category by category to keep its complexity bounded. The EU regime above illustrates the need — even its per-mode limits carry function-keyed allowances within them — and this framework's product scope is more diverse still. The DCP's taxonomy of primary and supporting functions is the natural foundation for such an architecture, one more reason to develop it carefully now. NEEA would welcome the chance to discuss any of these comments with staff and can provide supporting technical material — including a fuller treatment of the IEC 62301 / IEC 63474 measurement landscape and the EU Ecodesign standby / networked-standby regime — on request. Thank you for considering these comments.

Sincerely,

Sarah Widder
Codes & Standards Strategist
NORTHWEST ENERGY EFFICIENCY ALLIANCE
700 NE Multnomah Street, Suite 1300,
Portland, Oregon 97232
503.467.2960 | swidder@neea.org

Gregg Hardy
Principal
Pacific Crest Labs
3470 NW Thurman St
Portland, OR 97210
(503) 975-3641 mobile
ghardy@pacificcrestlabs.com
www.pacificcrestlabs.com