2020 Connected Plug Load Controls Entrant Guide

Connected Plug Load Controls is a category of *Lighting & Homes for Tomorrow* 2020. For manufacturers interested in submitting connected plugs, switches, sockets, outlets, or advanced power strips, a summary of eligibility and product requirements is provided.

Lighting & Homes for Tomorrow (LHFT) is focused on delivering a positive consumer experience with efficient, connected technology. In the past few years, there has been an influx of connected devices and systems entering the market, and LHFT sees an opportunity to ensure that residential products are delivering quality to customers as well as considering energy saving and management capabilities.

Connected Plug Load Controls Competition Scope

The plug load controls category of LHFT is open to products with primary applicability in the residential sector, or in residential-style applications such as hospitality and assisted living environments. Products must be suitable for sale by retailers serving the residential new construction, do-it-yourself (DIY), and major renovation markets in the United States and Canada. If an entry is comprised of components from more than one manufacturer, LHFT encourages collaboration in the submission of the entry.

Categories include:

- Plugs
- Switches
- Sockets
- Outlets
- Advanced Power Strips

If you are interested in submitting a product family or system, LHFT recommends that a manufacturer select one or two products as a representative for a product family and submit them individually along with a mention that the product is part of a larger family within the product description in the submission form. Manufacturers are also invited to submit images of other products within the family as well as marketing materials that show the product family.

The competition is intended to highlight plug load controls that are available for purchase in 2020. As such, products available or planned for introduction to the market between January 1, 2018 and January 31, 2021 are eligible to enter the competition. If you are unsure whether your product falls within the competition scope or have additional questions, please reach out to Kim Katz at info@lightingfortomorrow.com.

What Capabilities is LHFT Seeking?

LHFT is seeking connected plug load controls to help customers manage their energy use. It is not expected that entries will include all of the following, but some qualities and capabilities that are desired include:

- Controllable via wireless connection.
- Low wattage (less than one watt desirable) based on functionality provided.
- Automatically reduce "phantom" or "vampire" loads from devices that continue to draw power when not in use by automatically switching off power to devices.
- Sensing capabilities to optimize plug load operation based on occupancy, geofencing, motion sensing, or infrared signal sensing.
- Customization, such as the ability for consumers to input preferences and parameters related to product operation.
- Ability to seamlessly operate with other connected devices, systems, and platforms within the home.
- Customizable consumer notifications prior to device shutdown or for events like system failures, power surges, or planned device shutdowns.
- Continued functionality of sensing capabilities to reduce phantom loads even when cloud connection is lost.
- Ability for consumers to access energy consumption information including remote access via an app, website, or home energy management system.
- Data sharing with customer-authorized third parties, including operational status and energy consumption reporting.
- Ability to collect, aggregate, and analyze plug load control performance data that enables ongoing energy savings measurement and verification, while being mindful of consumer personal privacy concerns.
- Programmable settings, such as vacation, away, or nighttime modes that reduce energy use.
- Resilient features, such as compatibility with a GFCI circuit or outdoor rating.

Again, it is not expected that entries will include all of the above capabilities; rather, products should include measures that save energy and provide a positive consumer experience. Additional capabilities beyond this list will also be considered in the judging process. Products with greater functionality will receive more points (see judging criteria, below).

Entry Requirements

- Complete submission forms.
- Entries selected for in-person judging:
  - Must ship products to the judging location. For more information, please see the Shipping Instructions document.
  - In addition, all entries must share user interface information, such as the app or website and a demo login, if applicable.

- o Must provide printed or digital marketing materials that demonstrate the value proposition to the customer (may include product packaging, point-of-purchase materials, advertisements, or other materials).
  - o Must provide printed or digital installation instructions.
- If selected as a winner, entrants must:
  - o Provide laboratory reports for energy performance.
  - o Complete a cybersecurity questionnaire and interview.

Competition Process

Evaluation of LHFT entries will take place in the following stages:

1. **Complete the Intent-to-Submit Form.** Entrants will be assigned entry number and receive access to the Final Submission Form.
2. **Complete the Final Submission Form** by June 5, 2020.
3. **Screening Entries.** The LHFT Steering Committee will screen entries by reviewing submissions to identify the most promising candidates for further assessment based on the evaluation criteria. All entrants will be notified of their results in late July 2020.
4. **Finalists must ship products and supporting materials** to the judging location to be evaluated by a panel of experts. Shipping instructions will be provided to finalists.
5. **Installation and verification of submissions** by UL staff to make sure all parts necessary to mount and operate the product in its intended application are included and that the controls function properly.
6. **In-person Judging.** The Judging Panel will review products, videos, and supporting documents and select winners according to the judging criteria (below).
7. **Notification of winners and verification** of energy performance and cybersecurity.
8. **Public announcement** and promotion of winners at industry events.

Judging Criteria

Judges will score each entry according to the following criteria:

Energy and Carbon Savings	How much energy does the device consume? How does it support energy savings and how large are those savings?
Functionality	How is this device connected? What amenities are offered to consumer? What energy and load management capabilities are included?
Interoperability	How well does the product integrate with other devices and systems for customer control and energy management? What is the level of integration? With how many? What is the market share of compatible devices and systems?
Data Sharing	What data is shared with the consumer and authorized third parties? How does that data benefit the consumer?

Cybersecurity*	What steps have been taken to address cybersecurity risks?
Reliability	What functionality is maintained with the loss of connectivity? How does the device reconnect after loss of power, connectivity, or software update?
Simplicity: Value Proposition	Is the value proposition easily understood?
Simplicity: Installation, set up, and use	How easy is it for consumers to install, set up and use the device? This includes accessing consumer portals or connecting to other connected home devices.
Quality	Judges will use entrant provided performance data as an input when evaluating the in-person appearance of quality with respect to its intended application to inform their scoring, including size and consumer experience.
Value to Cost	Is the price point commensurate with amenity and quality of the device?
Innovation in Design / Form Factor	Is the design unique or innovative? Does it look new and exciting?
Innovation in Engineering	Are there innovative technical elements?
Future Proofing	Does the entrant have plans and infrastructure to support contingencies such as new protocols and platforms entering the market, cyber-attack, or company changes?

Additional Points

The 2020 Judging Panel may award bonus points for entries exhibiting other desirable characteristics such as such as resiliency and niche applications like senior-friendly products, as determined by consensus of the Judging Panel.

Awards for Connected Plug Load Controls

Product awards will likely be announced at the ALA Conference, September 13-15, 2020, subject to change due to impacts of COVID-19. Winners will also be promoted through press releases to both consumer and trade publications and among CEE members, the *Lighting & Homes for Tomorrow* website, CEE Industry Partners Meeting, and materials at key industry events in 2021. In addition, CEE member efficiency program administrators may choose to recommend winning entries to their customers.

Additional Questions?

Check out the FAQ at http://lightingfortomorrow.com/competition/ or contact Kim Katz at info@lightingfortomorrow.com with any questions.

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* Cybersecurity measures will not be evaluated directly by the Judging Panel. Winners will have to demonstrate cybersecurity measures as part of a final verification process prior to receipt of award.