

Party Like It's 2020: EISA Phase 2 – An Examination of DOE Rulemaking and Implications for Programs

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Over the past several years the residential lighting market has been going through unprecedented change. Consumers are swapping out inefficient incandescent and halogen lamps for CFLs and LEDs in record numbers. These changes are being spurred largely by two separate but related efforts: strong incentive programs provided by program administrators and increased federal efficiency standards.

For nearly two decades, program administrators have been leading the way to a brighter future by providing incentives to help bring down the cost of energy-efficient lamps. Starting with CFLs and transitioning now to LEDs, program administrators have worked hard to introduce customers to energy-efficient alternatives and persuade them to turn away from the familiar traditional incandescent lamps they grew up with. A lot has changed over the years, but through it all most program administrators have remained committed to seeing the market transform.

In part because of program administrator success, the federal government has introduced new efficiency standards that may help push the residential lighting market past the tipping point toward full market transformation. Beginning in 2012, the Energy Independence and Security Act of 2007 (EISA), began to phase out lower efficiency lamps. While the first phase of EISA was largely successful from an efficiency perspective, it only moved the market a small way from incandescents to halogens, and left much room for additional savings.

However, EISA was designed with two phases. Phase II (also referred to as the EISA backstop) is not set to take effect until January 1, 2020. While the exact impact of Phase II is yet unknown, in January of 2017, the Department of Energy (DOE) issued two rules that greatly expanded the scope of Phase II. This poster provides a brief overview of the implications of the two final rules issued by the DOE in January 2017 related to General Service Lamps (GSLs). The complete rules can be found in the federal register through the following links:

- <https://www.gpo.gov/fdsys/pkg/FR-2017-01-19/pdf/2016-32012.pdf>
- <https://www.gpo.gov/fdsys/pkg/FR-2017-01-19/pdf/2016-32013.pdf>

The first link is the final rule which includes DOE's decision to amend the definition of GSLs. The most important takeaways from the amended definition are:

- Efficiency standard of 45 lumens per watt,
- The expansion of covered lumen range, and
- The elimination of seven exemptions

Based on the revised definition of GSL, the EISA Phase II backstop now covers the clear majority of residential lighting options. This means that very few lamps will be exempt from EISA after January 1, 2020.

Additional Detailed Analysis

Efficiency Standard. The final rulemakings indicate that beginning January 1, 2020, GSLs will be subject to an efficiency standard of 45 lumens per watt—an efficiency standard that is higher than what current incandescent and halogen technologies can achieve. This efficiency standard suggests that post

2020, the baseline standard for covered lamps will effectively be CFLs. However, as the market is rapidly moving away from CFLs, it is possible that by 2020, the baseline for covered lamps will be LEDs.

Lumen Range Expansion. EISA Phase I covers GSLs between 310 to 2,600 lumens. The amended GSL lumen range, beginning January 1, 2020, will be 310 to 3,300 lumens. This means that EISA Phase II will apply to higher lumen-output lamps excluded from Phase I.

Elimination of Exemptions. As part of EISA Phase I, the DOE specifically identified 22 lamp types that were exempt (not covered) by the EISA efficiency standards. III.1 in the second rulemaking (link above) provides the list the 22 originally exempt GSL categories as well as approximate national sales (as estimated by the DOE). The final rules issued by the DOE in January 2017 discontinue exemptions for seven important categories beginning January 1, 2020.

- Reflector Lamps
- Rough Service Lamps
- Shatter-Resistant Lamps
- 3-Way Lamps
- Vibration Service Lamps
- T-Shape Lamps of 40 Watts or less or length of 10 inches or more
- B, BA, CA, F, G16-1/2, G25, G30, S, M-14 lamp of 40 W or less

As the sales data provided in the table demonstrate, the categories for which exemptions will be discontinued are also some of the higher sales categories—representing about 90% of previously exempt lamps.

Enforcement and Sell Through Period

The scope of Phase I of EISA only covered import and manufacture of lamps and did not impose a sales ban—so if retailers obtained a lamp they were not precluded from selling that lamp.

The final EISA Phase II rulemakings prohibit **manufacture and sale** of lamps covered lamps. However, the DOE further clarified in a footnote that it would likely allow a sell through period for non-compliant lamps after the backstop goes into effect (beyond 2020). In addition, the DOE has allowed for a possible delay (beyond 2020) in enforcement for at least some lamp categories. In addition, the SWE thinks it is unlikely that the DOE will receive funding to enforce the standards.

It is important to note that, in the final rules, the DOE has explicitly stated that they may not enforce the standards for all lamp types beginning in 2020 and may instead delay enforcement based on an ongoing dialog with lighting industry stakeholders.

DOE acknowledges that manufacturers may face a difficult transition if required to comply with a 45 lm/W standard. Manufacturers have voiced concern regarding the loss of domestic manufacturing jobs, the stranding of inventory, the ability to meet the demand for all general service lamps with lamps using LED technology, and the burden associated with testing and certifying compliance for all general service lamps in DOE's Compliance Certification Management System (CCMS). Manufacturers have requested an end to or delay in imposing any new standards for general service lamps and a two to three year delay in enforcing the backstop standard.

DOE is committed to working with manufacturers to ensure a successful transition if the backstop standard goes into effect. DOE will continue to have an active dialogue with industry, including meetings and other stakeholder outreach, throughout the period between publication of this rule and

the compliance date of any backstop standard for general service lamps, including IRLs. During this period, DOE will keep stakeholders and the public apprised of its plans for any broad exercise of enforcement discretion with respect to the standard.

In addition, while the final rules say that manufacture and sale of lamps are covered, the DOE further clarified in a footnote that the DOE would likely allow manufacturers to sell through non-compliant lamps manufactured before the backstop goes into effect:

In that vein, DOE also notes NEMA's comment that because the backstop requires DOE to "prohibit sales," it could present a substantial practical difficulty regarding compliance. For most products, NEMA states, after a standard comes into effect distributors can continue to sell inventory still on hand that complied with the previous standard. If, by contrast, distributors cannot sell old lamp inventory after January 1, 2020, that inventory will be stranded. Although it is premature for DOE to explain in detail how the backstop would work if it comes into force, DOE notes that under subsection (i)(2), "it shall not be unlawful for a manufacturer to sell a lamp which is in compliance with the law at the time such lamp was manufactured." DOE expects it would interpret and apply the backstop with subsection (i)(2) in mind.

Uncertainty

In the final rulemakings, the DOE indicated that they would issue specific enforcement guidelines closer to when the standards go into effect but did not include a specific timeline. The DOE is currently engaged in discussions with lighting-industry stakeholders about the expected outcomes of the current rulemakings. In addition, in March 2017, the National Electrical Manufacturers Association (NEMA) filed a lawsuit against the DOE challenging the EISA regulations.

These conversations and the lawsuit may mean additional changes or revisions to the rulemaking prior to January 1, 2020. This is an area that merits careful attention. NMR and NEEP will continue to carefully monitor developments.

WHAT HAPPENED?

Standard Set to 45 Lumens/Watt



Only LEDs and CFLs are likely to meet this standard.

Lumen Range Expanded



The lumen range was expanded to include some higher lumen lamps.

Exemptions Changed!

90%

of previously exempt lamps are now covered.

GSL Definition Amended



DOE decided the budget rider did not prevent them from applying backstop standards to incandescent lamps.



PHASE I

2007 EISA passed by Congress. Covers mostly A-lamps. 22 exemptions, including reflectors.

2012 Phase I Begins. Three-year phase in. 100-Watt Incandescent phased out.

2013 Phase II framework released. Public meeting. 75-Watt incandescent phased out.

2014 PTSD Released. Public meeting. 60- and 40-Watt incandescent phased out.

PHASE II

Mar. 2016 NOPR released. Very high standards for LED/CFLs. Excludes incandescent/halogen due to budget rider.

Apr. 2016 Public meeting. General support to phase out CFLs. Questions regarding incandescents/halogen.

Oct. 2016 NOPDDA released. GSL definition expanded. Includes incandescent/halogen. Removes 7 exemptions.

2017 Final rule and definition change. GSL expanded to include 7 exemptions. Covers all lamp technologies. 45 lumens per watt backstop - 2020.

2020 Phase II goes into effect. Covers import, manufacture, and sale of GSL. Confusion ensues!

WHAT'S NEXT?

Future of Programs

Pre-2020 numerous opportunities exist

Post-2020 opportunities diminish rapidly

Far fewer EISA exempt lamps - TRMs will need to be updated. Sell-through period is likely to be shorter compared to Phase I. Market forces continue to push market toward LEDs.

Future Opportunities

Smart lighting/Connected Lighting

Preliminary studies suggest savings will be low.



Legalization opens up grow lights.

Most attention on commercial side right now. Residential opportunities exist that could be significant.

IS THE MARKET TRANSFORMED?



Monitor the market for signs of transformation.

- Saturation Studies
- Supplier Interviews
- Shelf-Stocking Studies
- Sales & Shipment Data
- ENERGY STAR Market Share

California presents a test case.

CEC standards program enacts federal standards early. GSL standards change in 2018. Critical to watch implementation.



Opportunities for Collaboration

Numerous PAs watching for same signs of transformation. Collaboration - especially in studying non-program areas may reduce evaluation costs.

WARNING: Uncharted Territory

Things can change. As we get closer to 2020, the more certain things will become. NEEP and NMR are monitoring developments.

An Examination of DOE Rulemakings

As of January 1, 2020, the vast majority of residential lighting options will be required to meet a standard of 45 lumens per watt. LEDs will be the baseline.

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