NRDC Comments on the 2016 Title 24 Building Energy Standards – 45-Day Language
Docket #15-BSTD-01
Comments on Nonresidential Lighting Retrofits
March 25, 2015

On behalf of our 1.4 million members and online activists, 250,000 of whom are in California, the Natural Resources Defense Council respectfully submits the following comments on the proposed changes for nonresidential lighting retrofits proposed in the 45-day language for the 2016 Title 24 Building Energy Standards ("the Code") published in February 2015. NRDC appreciates the opportunity to comment.

The Title 24 Building Energy Standards assure that all new buildings and renovations in California meet minimum levels of efficiency, providing cost-effective energy savings for Californians, reducing energy demand, and cutting greenhouse gas emissions. NRDC has participated in the proceedings to develop Title 24 since their inception because of these important consumer and environmental benefits. Title 24 has saved Californians over $30 billion on their energy bills since the first standards were adopted in 1975, in addition to cutting the associated pollution emissions.[1] These benefits do not even include the value of increased comfort in new homes, nor the benefits of decreases in gas and electricity prices that result from reducing demand. The CEC estimates that the 2016 Building Standards proposed in the 45-day language will result in net savings of almost $3 billion from homes and buildings permitted in 2017 alone. These savings will continue to grow in future years as new buildings continue to be built to the standards and beyond.

NRDC submits the following comments on the proposed changes to lighting alterations proposed in Section 141.0 in the February 2015 45-day language. To summarize our comments, <u>NRDC supports the revisions to the lighting alterations language proposed by PG&E in their March 19, 2015 Codes and Standards Enhancement Initiative (CASE) Report.</u> NRDC will submit additional comments on other aspects of the 45-day language in a subsequent submission.

The 2013 Building Efficiency Standards included significant updates to the lighting alterations provision, including an expansion of scope of the types of projects that are covered by the Code. These changes were estimated to lead to large energy savings: the California Investor Owned Utilities (IOUs) projected that the more stringent requirements would save 650 GWh/year for every year of construction complying with the code.

[1] http://www.energy.ca.gov/releases/2013_releases/2012_Accomplishments.pdf

However, some stakeholders have since raised concerns that these changes are inhibiting lighting retrofits from occurring, primarily due to permitting costs and the costs of lighting controls where required. In the February 2015 45-day language, the CEC proposed changes to address these concerns. The CEC's proposal in the 45-day language was a blunt fix to this problem that proposed creating a broad exemption to the lighting alterations requirement. This would have created major loopholes and drastically reduced energy savings.

A more nuanced approached is necessary: one that better threads the needle between allowing retrofit programs to continue to provide energy savings, while also maintaining the stringency of the code. This is particularly true for projects that are broader in scope than just lighting retrofits, such as tenant improvements and gut rehabs.

To this end, the CEC staff have continued to work with stakeholder to fine tune this language since the publication of the 45-day language and we commend them on this effort.

<u>NRDC writes in support of the revisions proposed by PG&E in their March 19, 2015 Codes and Standards Enhancement Initiative (CASE) Report. These proposed changes strike the right balance between allowing for the continuation of retrofit programs and maintaining code stringency, maximizing overall energy savings</u>.

In particular, the following points should be addressed in the final language proposed by the CEC:

- NRDC agrees that there should be a two-part solution: one that addresses the short term concern with the 2013 standards and one for the 2016 standards. Some of the challenges with the 2013 code will be mitigated with the further advancement and availability of dimmable LED systems, which is expected by 2017, when the new code will take effect. The CEC should adopt a two-part approach that provides near-term relief, while continuing to capture the potential energy savings from dimmable LEDs in the future code.
- To this end, we agree that the exemption threshold of 20 percent energy savings compared to the existing luminaires is appropriate from the 2013 code. However we urge the CEC to require a savings of 30 percent or greater compared to existing luminaires in the 2017 code, which would better reflect the potential savings from LEDs.
- While not addressed in PG&E's proposal, NRDC remains concerned by the fact that the savings compared to previously installed luminaires is not auditable, as there is no way to check the previously installed lighting wattage after it has been removed. This is problematic because a project could claim that they fell under this exemption and a code official would have no way to verify that is indeed the case after the project has been completed. Including a lighting power density requirement would resolve this concern, but we understand that there are barriers to this due to the burden of calculating square footage. Another approach to address this concern would be to include a minimum average efficacy requirement in addition to the percent wattage reduction requirement. This minimum average efficacy could be checked after the fact and would provide an additional check that projects utilizing this exemption indeed meet the requirements of the exemption. At a minimum, the CEC should require projects using the exemption to maintain some record of the previously installed lighting (e.g. previously installed wattage, photo documentation). This documentation could be aligned with the required documentation for lighting retrofit rebate programs so as to avoid any additional burden on retrofit contractors.

- NRDC agrees with PG&E on the importance of not exempting gut renovations and tenant improvements from the requirements, as these represent major opportunities for energy efficiency and do not warrant an exemption due to the nature of the project type. We support the language submitted by PG&E that states that the exception should be limited to "projects consisting of only luminaire replacements."

We appreciate the opportunity to comment and welcome further discussion with CEC staff on this issue.

Sincerely,

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