

CARE Committee

From: County Clerk
Sent: Tuesday, May 31, 2022 10:26 AM
To: CARE Committee
Subject: FW: Climate Action, Resilience & environment - committee meeting June 1st, 2022
Attachments: Maui County Bill 21 - commentary against current version.pdf; Highlighted - ASF from Committee Chair 05-26-2022.pdf

From: Eric Miyasato <eric@hawaiianlights.com>
Sent: Tuesday, May 31, 2022 10:25 AM
To: County Clerk <County.Clerk@mauicounty.us>
Subject: Climate Action, Resilience & environment - committee meeting June 1st, 2022

You don't often get email from eric@hawaiianlights.com. [Learn why this is important](#)

Attached is the documentation I wish to submit for the committee meeting on June 1st, 2022 at 9am.

I will be on the Bluejeans event tomorrow, but did not know how I could submit documents.

I am against the current written draft of the bill, as it would affect all outdoor lighting with a special requirement on the lamping. This special requirement is not available on all types of outdoor lighting.

Eric Miyasato, P.E.
808-226-5973

Class 1 lighting – means outdoor lighting used for outdoor sales areas, service stations, outdoor eating areas, outdoor assembly, or repair areas, and recreational areas

Class 2 lighting – means all outdoor lighting used for, but not limited to, illumination for equipment yards, parking lots, outdoor security, and other similar applications in which general illumination of the ground is the primary concern

Class 3 lighting – means any outdoor lighting used for decorative effects, including but not limited to, waterfall and pond lighting, landscaping and walkways.

Class 4 lighting – means all lighting used for illumination of roadways

Bill No. 21, CD1 (2022)

Summary

- States that section 20.35.060 for all NEW & fixtures prior to 1/25/2007 must comply with the section 20.35.090.
 - o Section 20.35.090 is the shielding requirements and usage restrictions for the Class 1, 2, 3, & 4
- Adds sections 20.35.060 part D & E
 - o Part D in summary is calling for lights sources to be less than 2% blue light content of the ratio of (400nm-500nm)/(470nm-700nm) range.
 - Note: This is similar to the Big Island standard of light.
 - o Part E subsections 1, 2 & 3 are general terms and very subjective.
- States the following exemptions in section 20.35.070
 - o A1. All outdoor lighting fixtures producing light directly by combustion of fossil fuels.
 - o A2. Low Wattage fixtures used for holiday decorations only
 - What defines as 'low wattage'?
 - o B. in summary gives a 3 year exemption to 20.35.060 D&E to all outdoor lighting fixtures.
 - o B also gives exemptions to 20.35.060D for specifically
 - Sports & athletic fields on state of Hawaii DOE properties
 - Private school properties
 - County parks
 - And remain exemption beyond 3 years, as long as there are no compliant lighting fixtures available that meeting industry standards for sporting events.

The current Bill 21 CD1 (2022) is written, an outdoor lighting fixture must comply with sections 20.35.060 and 20.35.090 with exceptions in section 20.35.070.

Section 20.35.060 will affect the following, but not limited to:

- Outdoor Retail & Outdoor eating
 - o Outdoor dining pavilions/patios/seating
 - o Car sales lots
 - o Gas stations
 - o Outdoor Batting cages
 - o Outdoor Golf Driving ranges
 - o Outdoor shopping center lighting

Filtered lights & monochromatic lights will not be able to discern true colors.
Monochromatic light will make colors shades of gray



Example of Monochromatic light



Example of Filtered light compliant to <2% blue content

- Decorative effects
 - o Outdoor signage, internally illuminated, externally illuminated, etc..
 - o Private Swimming pool lighting
 - o Safety & Security walkway landscape lighting at hotels
 - o County Fairs & Festivals (Obon festivals, concerts, etc)
- Residential properties
 - o Entry light
 - o Garage light/covered exterior lanai , unshielded
 - o Landscape lighting

June 1, 2022, Committee meeting

BILL 21(2022)

CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE
Amendment Summary Form

Legislation: Bill 21 (2022), relating to protecting seabirds from outdoor lighting.

Proposer: Kelly Takaya King, Chair *Kelly T. King*
Climate Action, Resilience, and Environment Committee

Description: Amend Bill 21 to more accurately describe its intent and provide clarity to the "General Requirements" and "Exemptions" sections.

Motion: Move to amend Bill 21 (2022) by substituting its contents for Bill 21 (2022), Proposed CD1 (attached).

Attachment: Bill 21 (2022), Proposed CD1.

care:misc:074aasf06:jbf

RECEIVED
2022 MAY 26 PM 1:22
OFFICE OF THE
COUNTY COUNCIL

ORDINANCE NO. _____

BILL NO. 21, CD1 (2022)

A BILL FOR AN ORDINANCE AMENDING CHAPTER 20.35, MAUI COUNTY CODE, RELATING TO PROTECTING SEABIRDS FROM OUTDOOR LIGHTING

BE IT ORDAINED BY THE PEOPLE OF THE COUNTY OF MAUI:

SECTION 1. The purpose of this Ordinance is to protect native Hawaiian seabirds from becoming disoriented by artificial lights during their maiden flights from their burrows out to sea. This is often referred to as “fallout” and leaves the birds at risk of predation by cats, mongoose, and other predators, as well as vulnerable to vehicle collisions, and starvation.

Hawaiian seabirds are an important part of Hawaiian history and were traditionally used by navigators to find their way back home to their islands. They also help our fishermen locate schools of ahi and are critical to our watersheds by helping to fertilize the soils and nearshore coral reef habitats with marine nutrients in their droppings.

The Council’s intent is to protect native Hawaiian seabirds as much as possible from interference of onshore sources of artificial light.

SECTION 2. Section 20.35.060, Maui County Code, is amended to read as follows:

“20.35.060 General Requirements. A. All new outdoor lighting fixtures ~~(shall)~~ **must** comply with the requirements of section 20.35.090.

B. All outdoor lighting fixtures that were legally installed before January 25, 2007, ~~(shall)~~ **must** comply with section

20.35.090 (by January 1, 2020; except class III lighting fixtures that were legally installed before January 25, 2007 shall be exempt from section 20.35.090).

C. Mercury vapor (shall) must not be used for new outdoor lighting fixtures or for the replacement of existing outdoor lighting fixtures. All existing mercury vapor outdoor lighting fixtures (shall) must be removed (within ten years of the enactment of this ordinance.) by January 25, 2017.

D. All outdoor lighting fixtures, except for neon, must be filtered light emitting diode fixtures that limit short wavelength content to no more than two percent of blue light content. "Blue light content" means the ratio of the amount of energy emitted by the outdoor light fixture between 400 and 500 nm divided by the amount of energy between 400 and 700 nm.

E. All outdoor lighting fixtures, except for neon, must be:

1. Down directed with no light shining above the horizontal. Wall-mounted fixtures must have opaque shields to direct all light down, and, if the light hits a wall surface, the surface must be non-reflective (e.g., not a polished or glass surface; painted surfaces must have matte paint).

2. Fully shielded, including shielding that ensures no light shines over the ocean.

3. Mounted as low as possible while still complying with existing lighting and safety standards to limit light trespass and reflection off ground surfaces (e.g., where existing lighting and safety standards specify a range of heights to mount fixtures, the fixtures must be mounted at the lowest height in the specified range). Fixtures must not have bulbs visible from above."

SECTION 3. Section 20.35.070, Maui County Code, is amended to read as follows:

"20.35.070 Exemptions. A. The following (shall be) are exempt from the provisions of this chapter:

(A.) 1. All outdoor lighting fixtures producing light directly by the combustion of fossil fuels, such as kerosene and gasoline[;].

(B.) 2. Low wattage fixtures used for holiday decorations only[;].

(C. Temporary lighting used for public safety, road construction or emergency repair, field harvesting, and road crossing;

D. Temporary hotel and condominium beach security lighting;

E. Safety and security lighting for water features, except that water feature lighting such as for waterfalls, jet sprays, and bubblers shall be subject to the usage restrictions of section 20.35.090;

F. Replacement of outdoor lighting fixtures legally installed before the enactment of this ordinance with the same or like fixtures; provided, that such lighting fixtures shall be subject to sections 20.35.060.B and 20.35.060.C;

G. Outdoor lighting fixtures on a motion sensor timed to turn off within a five-minute time limit;

H. Lighting on federal and State properties and on areas under the jurisdiction of the federal and State government, including, but not limited to, Hawaiian home lands, State conservation districts, airports, and harbors.)

B. All outdoor lighting fixtures installed prior to the enactment of the ordinance establishing subsections 20.30.060(D) and (E) are exempt from the provisions of those subsections for a period of three years from the date of enactment of the ordinance establishing those subsections; except that lighting for sports and athletic fields on state of Hawaii department of education properties, private school properties, and County parks and facilities may remain exempt from subsection 20.30.060(D) beyond the three-year period if, and for only as long as, there are no compliant lighting fixtures available that meet industry standards for sporting events."

SECTION 4. Section 20.35.090, Maui County Code, is amended to read as follows:

"20.35.090 Shielding requirements and usage restrictions. Outdoor lighting fixtures **[shall] must** conform to the following shielding requirements and usage restrictions:

Lamp Type	Shielding Requirement	Usage Restrictions
Class I		
Augmented monochromatic	Fully shielded	None
Low pressure sodium	Fully shielded	None

Metal halide	(Partially) Fully shielded	Off from 11:00 p.m. to sunrise*
All others	Fully shielded	None
Class II		
Augmented monochromatic	Fully shielded	None
Low pressure sodium	Fully shielded	None
All others (existing)	Fully shielded	None
All others (new)	Fully shielded	None
Class III		
Low pressure sodium	Fully shielded	None
High pressure sodium	Fully shielded	None
Neon	None	Off from 11:00 p.m. to sunrise*
Others	Fully shielded	None
Others	(Partially) Fully shielded	Off from 11:00 p.m. to sunrise*
Class IV		
Existing	Fully shielded	None
Low pressure sodium	Fully shielded	None
High pressure sodium	Fully shielded	None
Others	Fully shielded	None

*These lights may be used between 11:00 p.m. and sunrise if business or recreational activities are taking place, but ~~(shall)~~ must be turned off no later than one hour after conclusion of activities.”

SECTION 5. Material to be repealed is bracketed. New material is underscored. In printing this bill, the County Clerk need not include the brackets, the bracketed material, or the underscoring.

SECTION 6. This Ordinance takes effect on approval.

care:misc:074abill06

INTRODUCED BY:

Kelly T. King

KELLY TAKAYA KING