
A BILL FOR AN ACT

RELATING TO LIGHT POLLUTION.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that dark night skies
2 hold important cultural, scientific, astronomical, natural,
3 landscape, and tourism related value. Light pollution caused by
4 the excessive, misdirected, or obtrusive use of artificial light
5 has become a worldwide problem and is now posing significant
6 challenges for the State from ecological disruption to
7 compromised astronomical research. The inappropriate use of
8 lighting at night includes over-illumination, with excessive use
9 of artificial light, use of fixtures that direct light upwards
10 causing glare, light trespass and sky glow, and use of fixtures
11 that have excessive amounts of blue light.

12 Light pollution is a statewide issue because light travels
13 far distances. For example, the western part of Molokai has a
14 much brighter night sky than the eastern part due to the sky
15 glow from Oahu, and the sky glow from Oahu is easily visible
16 from Haleakala, interfering with astronomical observations in
17 the western part of the sky.



1 Light at night interferes with various species of animals,
2 including federally and state-protected seabirds and turtles.
3 When young seabirds and turtles leave their nests, they orient
4 by using the light from the sky. Bright artificial lights
5 disorient seabirds and turtles causing them to fly or walk to
6 inland areas where they become exhausted and are more vulnerable
7 to predators. Historical use of poorly designed light fixtures
8 has required very costly retrofits to reduce the impact on these
9 species. Light at night, particularly blue light, also
10 interferes with circadian rhythms, including those in humans.
11 The World Health Organization has listed "shift work" that
12 involves circadian disruption as a probable carcinogen.
13 Research suggests that light intrusion, even if dim, is likely
14 to have measurable effects on sleep disruption and melatonin
15 suppression. Even if these effects are relatively small from
16 night to night, continuous chronic circadian sleep, and hormonal
17 disruption may have longer-term health risks.

18 Another consideration concerning night light is the cost
19 involved. Nighttime illumination of state highways, harbors,
20 airports, and other facilities is costly and consumes large



1 amounts of energy. Application of new lighting technologies may
2 produce substantial energy and cost savings.

3 The legislature finds that the preservation of the State's
4 dark night skies is essential to the State's well-being and that
5 the State needs a statewide coordinated strategy to address this
6 issue. The legislature notes that a dark night skies protection
7 advisory committee was established by Act 185, Session Laws of
8 Hawaii 2017, to assist the University of Hawaii in developing a
9 statewide dark night skies protection strategy and finds that
10 this type of advisory committee would be more appropriately
11 placed within the department of land and natural resources.

12 The purpose of this Act is to address the preservation of
13 dark night skies in Hawaii by establishing a dark night skies
14 protection advisory committee within the department of land and
15 natural resources and expediting the repeal of the existing
16 advisory committee within the University of Hawaii.

17 SECTION 2. (a) There is established a dark night skies
18 protection advisory committee, to be placed within the
19 department of land and natural resources for administrative
20 purposes. The advisory committee shall assist the department of



1 land and natural resources in developing a statewide dark night
2 skies protection strategy.

3 (b) The advisory committee shall consist of:

4 (1) The chairperson of the board of land and natural
5 resources;

6 (2) The comptroller;

7 (3) The director of business, economic development, and
8 tourism;

9 (4) The director of transportation;

10 (5) The president of the University of Hawaii;

11 (6) The mayor of each county;

12 (7) The chief executive officer of the office of Hawaiian
13 affairs;

14 (8) The director of the University of Hawaii institute for
15 astronomy; and

16 (9) A representative of the University of Hawaii at Hilo.

17 (c) The chairperson of the board of land and natural

18 resources shall select a chairperson from among the members

19 listed in subsection (b).

20 (d) The chairperson of the advisory committee shall invite

21 the following individuals to become members of the task force:



- 1 (1) A representative from the United States Fish and
2 Wildlife Service;
- 3 (2) A representative of the United States military, to be
4 appointed by the Commander of the United States
5 Pacific Command;
- 6 (3) A representative from the Federal Aviation
7 Administration;
- 8 (4) A representative from the United States Coast Guard;
- 9 (5) A representative from the Federal Highway
10 Administration;
- 11 (6) A member of the Hawaiian Astronomical Society; and
- 12 (7) The DesignLights Consortium, a non-governmental
13 organization.
- 14 (e) In developing the dark night skies protection
15 strategy, the advisory committee shall consider and evaluate
16 issues that include:
- 17 (1) Reduction of light pollution in the State;
- 18 (2) Methods to conserve energy;
- 19 (3) Cultural, scientific, astronomical, natural, tourism,
20 and landscape related values associated with dark
21 night skies;



- 1 (4) Protection of federally and state protected species
2 that are affected by artificial light;
- 3 (5) Impacts of light pollution on astronomical
4 observations;
- 5 (6) Educational uses of the dark night sky by K-12 and
6 higher education students;
- 7 (7) Establishment of dark night sky parks, which are
8 designated locations that have special protections for
9 the night sky, and are locations where residents and
10 visitors can view the night sky with minimal
11 interference from artificial light;
- 12 (8) Statewide monitoring of light pollution levels and
13 long-term trends in light pollution;
- 14 (9) Public safety issues related to the reduction in
15 artificial light, as well as over lighting resulting
16 in glare and light trespass; and
- 17 (10) Any additional considerations that the advisory
18 committee believes will help to protect dark night
19 skies in the State.
- 20 (f) Members of the advisory committee shall serve without
21 compensation but shall be reimbursed by their respective



1 organization for expenses, including travel expenses, necessary
2 for the performance of their duties. The department of land and
3 natural resources shall provide all necessary administrative,
4 professional, technical, and clerical support required by the
5 advisory committee.

6 (g) The advisory committee shall be dissolved on June 30,
7 2028.

8 SECTION 3. The department of land and natural resources
9 shall report its initial findings and recommendations, including
10 any proposed legislation, to the legislature no later than
11 twenty days prior to the convening of the regular session of
12 2025. The advisory committee shall report its updated findings
13 and recommendations, including any proposed legislation, to the
14 legislature no later than twenty days prior to the convening of
15 the regular sessions of 2026, 2027, and 2028.

16 SECTION 4. Act 185, Session Laws of Hawaii 2017, is
17 amended by amending section 2, subsection (h), to read as
18 follows:

19 "(h) The advisory committee shall be dissolved on
20 [~~June 30, 2027.~~] July 1, 2024."

21 SECTION 5. This Act shall take effect on July 1, 2024.



H.B. NO. 2027

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INTRODUCED BY:

NAB

JAN 19 2024



H.B. NO. 2027

Report Title:

Light Pollution; Dark Night Skies Protection Advisory Committee;
Department of Land and Natural Resources

Description:

Establishes a dark night skies protection advisory committee to assist the Department of Land and Natural Resources in the development of a statewide dark night skies protection strategy to preserve dark night skies and reduce light pollution. Sunsets the existing advisory committee under the University of Hawaii on 7/1/2024.

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